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Délibérations de la

Société royale du Canada

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Proceedings of the
Royal Society of Canada
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1987

DIGBY J. McLAREN

President of the Royal Society of Canada 1987-1990
Président de la Société royale du Canada 1987-1990

THE ROYAL SOCIETY OF CANADA

The Royal Society of Canada is a national academy whose object is the promotion of learning and research in the arts and sciences. It was founded in 1882 by the Governor General of Canada, The Right Honourable the Marquess of Lorne, and is incorporated by an Act of the Parliament of Canada of 1883.

It is organized into three Academies:

Académie I: L'Académie des Lettres et des Sciences humaines de la Société royale du Canada

Academy II: Academy of Humanities and Social Sciences of the Royal Society of Canada

Academy III: Academy of Science of the Royal Society of Canada

To fulfil its object it:

- elects distinguished scholars to its membership;
- awards medals and prizes for excellence in learning and research in the arts and sciences;
- organizes an annual meeting at which papers are presented on all aspects of learning and research, and which usually includes a symposium on a topic of concern to all three academies of the Society;
- publishes *Transactions*, *Proceedings* and *Calendar* annually, a Newsletter, *Diversa*, semiannually;
- organizes regional, national, and international symposia on topics of current interest and importance, usually with strong participation from several disciplines;
- publishes the proceedings of symposia when it is appropriate;
- undertakes national and international projects of various kinds for the advancement of learning and research.

LA SOCIETE ROYALE DU CANADA

La Société royale du Canada est une académie nationale qui a pour objet de contribuer au développement du savoir et de la recherche dans les arts et les sciences. Fondée en 1882 par le Gouverneur du Canada, le très honorable marquis de Lorne, elle a été constituée par loi du Parlement canadien en 1883.

La Société comprend trois académies:

Académie I: L'Académie des Lettres et des Sciences humaines de la Société royale du Canada

Academy II: Academy of Humanities and Social Sciences of the Royal Society of Canada

Académie III: L'Académie des sciences de la Société royale du Canada.

Les objectifs de la Société sont:

- l'admission par voie d'élection d'auteurs distingués;
- l'attribution de médailles et de prix pour récompenser le haut savoir et la recherche dans les arts et les sciences;
- la tenue de réunions annuelles où l'on présente des communications traitant de tous les aspects du savoir et de la recherche, et qui comprennent habituellement un colloque sur un sujet apte à intéresser les trois académies de la Société;
- la publication chaque année des *Mémoires*, des *Délibérations* et de *l'Annuaire* ainsi que de *Diversa* deux fois par an;
- la tenue de colloques internationaux, nationaux et régionaux sur les sujets d'actualité importants, ordinairement à caractère interdisciplinaire;
- la publication des comptes rendus de colloques d'intérêt général;
- divers projets d'ordre national et international visant à encourager le savoir et la recherche.

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Proceedings/Délibérations

The Royal Society of Canada
La Société royale du Canada

FOUNDER/FONDATEUR: HIS GRACE THE DUKE OF ARGYLL, K.T., etc. *(when Governor General of Canada in 1882) (lorsqu'il fut Gouverneur général du Canada en 1882)*

PATRON: HER EXCELLENCY THE RIGHT HONOURABLE JEANNE SAUVÉ, P.C., C.C., C.M.M., C.D., GOVERNOR GENERAL OF CANADA
PRESIDENTE D'HONNEUR: SON EXCELLENCE LA TRÈS HONORABLE JEANNE SAUVÉ, C.P., C.C., C.M.M., C.D., GOUVERNEUR GÉNÉRAL DU CANADA

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OFFICERS OF ACADEMIES 1987-88
BUREAUX DES ACADÉMIES 1987-88

Académie I: L'Académie des Lettres et des Sciences humaines
Président: Naïm Kattan, O.C.
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Secrétaire: Gérard Bélanger, M.A., M.Sc.Soc.

Academy II: The Academy of Humanities and Social Sciences
President: Karol J. Krótki, B.A., M.A. Ph.D.
Vice-President: Jean A. Laponce, Dipl.Inst.Sc.Pol., Ph.D.
Secretary: Anthony H. Richmond, B.Sc.(Econ), M.A., Ph.D.

Academy/Académie III: The Academy of Science/L'Académie des sciences
President/Président: E.A. McCulloch, M.D., F.R.C.P.
Vice-President/Vice-président: C.R. Barnes, B.Sc., Ph.D.
Secretary/Secrétaire: W.B. Kendrick, Ph.D., D.Sc.

MEMBERS OF COUNCIL 1987-88
MEMBRES DU CONSEIL 1987-88

The Council of the Society consists of the aforementioned officers of the Society and of the Academies, together with the following members:

Le Conseil de la Société se compose des membres du bureau de la Société et des Académies ainsi que des membres dont les noms suivent:

Honorary Editor/Directeur des publications: John M. Robson, B.A., M.A., Ph.D.
Honorary Librarian-Archivist/Bibliothécaire-archiviste: Guy Sylvestre, O.C., L.Ph., M.A., D.Litt., D. Bibl.
Foreign Secretary/Secrétaire pour les affaires étrangères: Charles H. Smith, B.Sc., M.Sc., M.S., Ph.D.
Past-President/Ancient Président: Alexander G. McKay, B.A., M.A., A.M. Ph.D., LL.D., K.St J.

Additional members/Membres additionnels

E.L. Bousfield, B.A., M.A., Ph.D.
P.C. Greiner, B.Sc., M.A., Ph.D.
O.J.C. Runnalls, B.A.Sc., M.A.Sc., Ph.D.

COMMITTEES AND FELLOWS 1987-88
COMITÉS ET MEMBRES 1987-88

Members of committees of the Society and of the Academies are listed in the 1987-1988 *Calendar*/Les noms des membres des comités de la Société et des Académies paraissent dans la brochure intitulée *Annuaire*, 1987-1988.

The list of Fellows will be found in the *Calendar*/La liste des membres paraît dans *l'Annuaire*.

Report of the Honorary Secretary for the Year

1986-1987

COUNCIL ACTIVITIES

The Council met four times and the Executive seven times. An account of the year's business including the audited financial statement is given in the Report of Council which was distributed to all Fellows.

The academies reported the elections of fifty persons. The names, categories and citations of the Fellows elected are given in the report of the annual meeting below.

The Society awarded the Pierre Chauveau Medal to Benoît Lacroix; the Sir William Dawson Medal to Gérard Dion and F. Kenneth Hare; the Thomas W. Eadie Medal to Alexander McLean; the Jason A. Hannah Medal to Toby Gelfand; the Innis-Gérin Medal to Anthony D. Scott; the McLaughlin Medal to Henry G. Friesen; the Willet G. Miller Medal to Harold Williams; the Lorne Pierce Medal to Rudy Wiebe; the Rutherford Medal in Chemistry to Grenfell N. Patey; the Rutherford Medal in Physics to A. John Berlinsky; the John L. Synge Award to James Arthur and the Henry Marshall Tory Medal to Keith J. Laidler. The citations appear on pages 30 to 40.

The Society received 15 applications for the NATO Research Fellowship which were dispatched to Brussells. Fabrice Blocteur de l'Université de Montréal, Robert J. Jackson of Carleton University and Donald James Munton of the University of British Columbia were selected.

The Sir Arthur Sims Scholarship has been extended to the present incumbent Simon Paul MacKenzie of the University of Toronto. The scholarship will be offered in September 1988 for academic years 1989-90 and 1990-91.

ANNUAL MEETING

The Annual Meeting was held on 31 May to 3 June 1987 in Hamilton, Ontario, where the Society was received by McMaster University. Those present were:

ACADEMIE I

Bélanger, Gérard; Brazeau, Jacques; Caparros, Ernest; Comtois, Roger; Dion, Gérard; Gagnon, Jean-Marie, Gendron, Jean-Denis; Hébert, Gérard; Hurtubise, Pierre; Kattan, Naïm; Laforte, Conrad; Lafrance, Yvon; Lebel, Maurice; Légaré, Jacques; Paquet, Gilles; Raynauld, André; Sylvestre, Guy; Tremblay, Marc-Adélard; Wallot, Jean-Pierre.

ACADEMY II

Bay, Christian; Braybrooke, David; Cairns, Alan C.; Clark, S.D.; Collie, Michael; D'Andrea, Antonio; Denton, Frank T.; Endler, Norman S.; Ericson, Richard V.; Ferguson, George A.; Friedland, Martin L.; Gauthier, David; Grayson, A. Kirk; Hacking, Ian; Hall, Oswald; Halpenny, Francess G.; Hayes, John W.; Hayne, David M.; Helliwell, John; Hieatt, A. Kent; Hieatt, Constance B.; Holmes, John W.; Hubbard, R.H.; Kilbourn, William; Klinck, Carl F.; Kolko, Gabriel; Kroetsch, Robert; Krótki, Karol J.; Laponce, J.A.; Leith, J.A.; Levere, Trevor H.; Macnamara, John; MacKenzie, Norman Hugh; Marchak, M. Patricia; McConica, James K.; McGhee, Robert; McGregor, Malcolm F.; McIvor, R. Craig; McKay, A.G.; McRae, K.D.; Millgate, Jane; Moore, A. Milton; Morton, Desmond; Mozejko, Edward; Nelles, H.V.; New, W.H.; O'Neill, John; Owen, W.J.B.; Principe, Walter H.; Richmond, Anthony H.; Riley, A.W.; Robson, John M.; Salmon, E.T.; Scott, Anthony D.; Shaw, W. David; Smith, Wilfred C.; Stewart, Pamela D.; Suvin, D.; Synan, Edward A.; Tushingham, A.D.; Waite, P.B.; Walker, Alan; Wevers, John Wm.; Whalley, John; Wilson, Milton; Winch, D.M.; Wise, S.F.; Wright, J.V.; Zaslow, Morris.

ACADEMY/ACADEMIE III

Anderson, Robert B.; Armstrong, H.S.; Atwood, H.L.; Bandler, John W.; Barnes, Christopher R.; Betts, Donald D.; Bolton, Charles Thomas; Bousfield, E.L.; Bowman, John; Brockhouse, B.N.; Bourns, A.N.; Burton, Ian; Campbell, Colin K.; Campbell, E.J.M.; Canvin, David T.; Carroll, Kenneth K.; Chrétien, Michel; Datars, W.R.; Dawson, Donald; Dence, Michael R.; Denhardt, David T.; Drake, Gordon; Dreimanis, Aleksis; Dunbar, M.J.; Egelstaff, P.A.; Embleton, Tony F.W.; Forsyth,

Peter A.; Friesen, Henry G.; Furnival, George M.; Fyfe, Wm.S.; Fyles, John C.; Garland, G.D.; Gold, Lorne W.; Gotlieb, Calvin; Hall, Brian, K.; Halliday, Ian; Halperin, Israel; Hamielec, A.E.; Hare, F.K.; Haynes, Robert H.; Hume, J.N.P.; Hurst, D.G.; Johnstone, Rose M.; Karl, Gabriel; Kendrick, Bryce; King, Gerald W.; Knowles, Roger; Laidlaw, J.C.; Laidler, Keith J.; Langleben, M.P.; Lindseth, Roy Oliver; Locke, J.L.; Lorch, Lee; MacLean, D.B.; Macphail, M.S.; MacRae, Donald A.; Martin, W. Johns; McCulloch, E.A.; McCully, M.E.; McLaren, D.J.; Middleton, Gerard V.; Morrison, J.A.; Mysak, L.A.; Neale, E.R.W.; Oaks, Ann; Parkinson, Dennis; Parr, Jim; Parsons, T.R.; Pearson, W.B.; Peltier, W.R.; Peter, Richard E.; Pounder, E.R.; Preston, M.A.; Robinson, G. de B.; Rochester, M.G.; Rooney, P.G.; Rothstein, Aser; Runnalls, O.J.C.; Salter, R.B.; Schiff, H.I.; Schwarcz, H.; Sells, Bruce H.; Shaw, Denis M.; Shaw, Edgar A.G.; Sheinin, Rose; Shemilt, L.W.; Simpson, John J.; Smith, Charles H.; Sprung, D.W.L.; Stewart, A.T.; Thiessen, George J.; Thode, H.G.; Tobe, Stephen S.; Trotter, James; Underhill, Anne B.; Verma, Desh Pal S.; Vijh, Ashok K.; Volkoff, G.M.; Whitham, K.; Whyte, Anne V.; Wightman, Frank; Williams, Harold; Williams, H. Leverne; Wilson, J. Tuzo; Woods, E.J.; Yong, Raymond N.

GENERAL MEETING

The General Meeting was held at 8:00 pm on Sunday, 31 May, 1987, in the Convocation Hall of McMaster University.

Dr. A.A. Lee, President and Vice-Chancellor of the University, welcomed the Fellows and their guests. The President of the Society thanked Dr. Lee, after which he invited the presidents of the three academies to introduce the new Fellows whose citations appear below.

Académie I

ROCH CARRIER, professeur titulaire de littérature française et Doyen des études collégiales du Collège militaire royal de Saint-Jean, docteur de l'Université de Paris, est un écrivain prolifique qui compte à son crédit huit romans, dont plusieurs ont été soit traduits en anglais, soit adaptés à la scène à Montréal, à Ottawa et à Stratford. Il a aussi écrit sept volumes de contes et de nouvelles pour enfants et adolescents sans parler de plusieurs textes de films pour eux. On lui doit également plusieurs pièces de théâtre et trois livres d'essais. Lauréat du Prix international de la Marionnette (Yougoslavie), du Prix littéraire du Québec et du Prix littéraire de Montréal, professeur et conférencier

invité dans la plupart des universités du Canada, en Belgique, en France, en Angleterre, aux Etats-Unis et en Australie, Roch Carrier est aussi un traducteur littéraire de qualité, témoin sa version anglaise de *Floralie* présentée à la Place des Arts en 1978. Il est aussi bien connu pour ses émissions à Radio-Canada.

CLAUDE CASTONGUAY, Président du conseil et chef de la direction de la corporation du Groupe La Laurentienne a été l'un des principaux artisans de la Révolution tranquille au Québec. Il a contribué, en effet, à la promotion et à la mise en place des nombreuses institutions qui ont donné à la province un visage moderne. Spécialiste en actuariat de profession, M. Castonguay a pris part, au début des années 1960, à la conception du nouveau régime des rentes du Québec; puis, il a dirigé les travaux de la Commission d'enquête sur la santé et le bien-être social qui devaient aboutir à de nouvelles normes en matières de sécurité sociale au Québec. Nommé par la suite *ministre des Affaires sociales*, il a appliqué les réformes fondamentales qu'il avait en partie proconisées. Dans les années 1970, après s'être retiré des affaires publiques, il a accepté de présider un groupe de travail dont la mission était de jeter les bases d'une politique urbaine éclairée pour le Québec. Claude Castonguay n'a pas seulement été toute sa vie un militant des causes sociales hors pair, mais il s'est révélé aussi un des théoriciens les plus féconds et un des plus grands réformateurs sociaux du Québec des cent dernières années. L'incidence de son action se fait sentir au travers de nombreuses institutions mais surtout d'une philosophie générale du bien-être social qui a influencé l'ensemble du Québec au cours des vingts-cinq années passées. M. Castonguay a beaucoup écrit et il a marqué, de façon déterminante, l'évolution de la société québécoise tout entière, ainsi que le mode de penser de sa dernière génération. Personne n'a jamais cumulé autant de responsabilités (technocratiques et politiques) tout en préservant aux yeux du public en général aussi bien qu'à ceux des élites, une réputation d'homme de grande intelligence et d'intégrité morale sans faille. Il s'agit vraiment de l'un des plus grands architectes sociaux canadiens. Les nouveaux objectifs et valeurs ainsi que la nouvelle définition du développement social peuvent lui être attribués pour la plupart. Les répercussions de la révolution sociale, introduite par M. Castonguay au Québec, continueront de se faire sentir dans le reste du Canada jusqu'à la fin du siècle. Dans la mesure où un tel "projet de société" est considéré comme la transformation sociale, politique et économique la plus importante opérée au Québec depuis cent ans, on doit alors regarder son auteur comme un éminent Canadien qui mérite de faire partie de la Société royale du Canada.

RENE DUSSAULT, avocat et professeur à l'Ecole nationale d'administration publique, Ph.D. en droit du London School of Economics, a été fondateur et premier président de l'Office des professions, sous-ministre de la Justice du Québec et premier occupant de la chaire de droit public Bora-Laskin à l'Osgoode Hall School de Toronto. Auteur de plusieurs travaux en droit administratif, en droit des professions, de la consommation et des services sociaux, M. Dussault s'est établi une solide réputation par son *Traité de droit administratif canadien et québécois*. D'une importance capitale en droit public, ce traité d'au-delà de deux milles pages a été récemment réédité et mis-à-jour en français aux Presses universitaires de l'Université Laval et en anglais chez Carswell Legal Publications.

FRANÇOIS M. GAGNON, professeur titulaire, Département de l'Art, Université de Montréal, a reçu son doctorat de la Sorbonne pour son mémoire publié sous le titre *Jean Dubuffet. Aux sources de la figuration humaine*. Spécialiste en histoire de l'art canadien, il a été professeur invité dans plusieurs universités et fait partie des comités de rédaction de plusieurs revues d'art. Un de ses huit volumes, *Paul-Emile Borduas (1905-1960). Biographie critique et analyse de l'oeuvre* publié, chez Fides a valu à son auteur le Prix du Gouverneur général pour 1978. Ses deux derniers ouvrages sont *Ces hommes dits sauvages*, chez Libre Expression en 1984, et *Hommes effarables et bestes sauvaiges*, chez Boréal en 1986. Il est de plus auteur d'un nombre considérable d'articles dans des revues spécialisées.

MARC GAUDRY, Assistant Directeur, Centre de recherches sur les transports, Université de Montréal, boursier Rhodes, est un spécialiste reconnu de l'économique des transports et de l'économétrie. Il est détenteur d'un doctorat de l'Université de Princeton. Co-éditeur de deux revues scientifiques internationales en transport, *Transportation Research* et *Les Cahiers Scientifiques du Transport*, il a déjà à son crédit plus de trente articles dans des revues d'envergure internationale. Marc Gaudry a récemment obtenu une subvention de plus de deux millions dans le cadre du programme des actions structurantes liées au virage technologique du ministère de l'Education du Québec. Cet honneur confirme le travail exceptionnel et très spécialisé de cet économiste.

PIERRE HURTUBISE, professeur titulaire à la Faculté de théologie et Recteur, Université Saint-Paul, Ottawa, a publié plus de deux douzaines d'articles dans les revues ou les recueils spécialisés sur des sujets surtout d'histoire religieuse. Ses oeuvres de longue haleine se sont centrées sur l'exploitation d'une mine très riche d'archives ayant trait aux générations, depuis la Renaissance, de la famille italienne des Salviati. Le professeur

Hurtubise a d'abord préparé (présenté, annoté et édité) deux volumes, parus en 1975 (XXIII-874 et 853 p., le second avec la collaboration de Robert Toupin s.j.), de *Correspondance du Nonce en France, Antonio Maria Salviati 1572-1578*, dont la valeur et l'intérêt ont été dûment reconnus par la critique puis, au terme de dix autres années de labeur, cette grande monographie publiée à l'été 1985, *Une famille-témoin: Les Salviati* (527 p.). Ce dernier ouvrage étudie à fond dans le temps, depuis "L'Aube" (XIVe et XVe siècle), jusqu'au "Crépuscule" (XVIIe et XVIIIe siècles), le devenir de cette *gens* Salviati.

LOUISE MARCIL-LACOSTE, professeur titulaire, Département de philosophie, Université de Montréal, a de très nombreuses publications. Son premier volume, *Claude Buffier and Thomas Reid, Two Common-Sense Philosophers*, la fait rapidement reconnaître comme une spécialiste du dix-huitième siècle. Sa réflexion philosophique s'étend au domaine éthico-social dans un second volume, *La thématique contemporaine de l'égalité*, publié aux Presses de l'Université de Montréal, qui est suivi d'un troisième, *La raison en procès . Essais sur les rapports entre philosophie et sexisme*, publié en 1986 chez HMH. En plus de très nombreux articles en philosophie et en éducation, Louise Marcil-Lacoste a dirigé la publication de cinq volumes supplémentaires.

YVON LAFRANCE, professeur titulaire, Département de philosophie, Université d'Ottawa, a accompli des recherches d'exceptionnelle qualité en histoire de la philosophie grecque. Son livre *La théorie platonicienne de la doxa* (Montréal: Bellarmin, Paris: Les Belles Lettres, 1981) représente la synthèse de recherches approfondies sur un aspect central de la théorie platonicienne de la connaissance. De plus, son ouvrage publié en 1983, *Méthode et exégèse en histoire de la philosophie*, représente une mise en forme synthétique des questions de méthode et de théorie historiographiques. Auteur de nombreux articles publiés au Canada et à l'étranger, Yvon Lafrance a joué un rôle institutionnel de premier plan au service de la recherche en fondant le Laboratoire de recherche en pensée antique et médiévale d'Ottawa et en lançant la collection *Noêsis*, co-éditée par Bellarmin et Les Belles Lettres.

LAURENT MAILHOT, professeur titulaire, Départment d'études françaises, Université de Montréal, a toujours eu le souci de faire connaître au public tant canadien qu'étranger la littérature québécoise. Des ouvrages qu'il signe seul, il faut noter un *Camus* fort bien reçu par la critique internationale, une *Anthologie d'Arthur Buies* et un *que sais-je* sur la littérature québécoise. Il a de plus participé à des collectifs de toutes sortes, anthologies dans les domaines de la poésie et du théâtre, un répertoire et un guide culturel, plusieurs études de détail, très

éclairantes. La carrière de Laurent Mailhot est encore en pleine expansion ce que confirme l'obtention récente de la prestigieuse bourse Killam.

JEAN-CLAUDE MARSAN, professeur et Doyen de la faculté d'aménagement, Université de Montréal, bien connu par ses chroniques d'architecture et d'urbanisme, est docteur en urbanisme de l'Université d'Edimbourg. Sa production académique est principalement consacrée à l'agglomération de Montréal. En plus d'une multitude d'articles dans des périodiques spécialisés, il s'est imposé par deux livres remarquables. Le premier, *Montréal en évolution historique du développement de l'architecture et de l'environnement montréalais* (Montréal: Fides, 1974, 423 p.), a été réédité et aussi publié en langue anglaise chez McGill-Queen's University Press (1981). En 1983, il publiait un autre volume, *Montréal: une esquisse du future*. Homme engagé, Jean-Claude Marsan a aussi une oeuvre universitaire remarquable dans un secteur peu étudié.

JEAN-CLAUDE ROBERT, directeur du programme d'études avancées, Université du Québec à Montréal, docteur de la Sorbonne, publiait, dès 1975, une première synthèse substantielle sur l'histoire du Canada français après 1840 (*Du Canada français au Québec libre*, Paris), puis, entreprenait, en collaboration, une monumentale *Histoire du Québec contemporain* en 12 volumes. Parallèlement à ces études, il a produit quelques trente-cinq articles, brochures et rapports scientifiques qui lui ont acquis une solide réputation comme spécialiste de l'histoire économique et sociale du Québec au XIXe siècle. Sa contribution à la connaissance des processus d'urbanisation et d'industrialisation est très importante. Peu d'historiens ont aussi bien intégré la dimension spatiale dans l'évolution historique et il n'est pas étonnant qu'il joue un rôle central dans le grand oeuvre que sera l'*Atlas historique du Canada*. Il a également participé à un grand nombre de sociétés savantes et de conseils.

ACADEMY II

MARGARET ATWOOD is a truly outstanding poet, novelist and literary critic. She is the author of many powerful and original works, including collections of poems such as *Power Politics* and *You are Happy*; collections of short stories including *Dancing Girls* and *Bluebeard's Egg*; and novels such as *Surfacing*, *Life before Man*, and most recently the dystopian *The Handmaid's Tale*. Her reputation has now spread throughout the English-speaking world. On the one hand, her incisive, witty style and her ability to tell a good story have reached a

wide audience; on the other hand, her black humour and penetrating insights have already been the subject of many scholarly analyses, both in North America and in Europe.

MICHAEL COLLIE, Department of English, Winters College, York University, well known as a writer and scholar in many different areas, has established for himself a position of particular authority in the fields of Victorian literature and Victorian studies. As biographer, bibliographer, and critic he has published extensively on Meredith, Gissing, Borrow, and other Victorian figures and proved himself to be a major scholarly presence both within Canada and internationally.

RICHARD V. ERICSON of the Centre of Criminology, University of Toronto, has an international reputation through his research on the criminal justice system and on the news media, his widely used and cited books, his editorship of *The Canadian Journal of Sociology*, and his teaching. Dr. Ericson's scholarship is multi-disciplinary in scope and impact, covering the fields of sociology, law, political science, social psychology, communications, and criminology. Professor Ericson's record as a distinguished scholar has attracted graduate students from many countries who now have faculty positions across Canada.

IAN CHARLES JARVIE of the Department of Philosophy, York University, trained in both anthropology and philosophy, is a philosopher of high repute who has made himself an international authority on the sociology of the cinema, with major works on the industry, its product and impact, as well as providing for anthropology and sociology not only substantive philosophical underpinnings but also a pungent critique of their methods and thought. Managing Editor of *Philosophy of the Social Sciences*, Professor Jarvie has taken an active part in University administration and Provincial educational planning. Not counting reprints and translations into German and Spanish, Professor Jarvie has published eight major works and some 200 reviews and essays. The latest work (1984) is *Rationality and Relativism*, published in London by Routledge and Kegan Paul.

CHRISTOPHER PRESTIGE JONES is at the Department of Classics at the University of Toronto. Four impressive books, over fifty learned papers and numerous incisive reviews have made Christopher Jones the outstanding expert on the Roman Empire in its greatest days. Immersed in its literature and skilled in imperial epigraphy, he is a world authority on the interaction of its Greek-speaking and Latin-speaking halves. He has been guest lecturer at many institutions (including Harvard and Paris' prestigious Ecole Normale Supérieure de Jeunes Filles), twice a

Fellow of Princeton's Institute for Advanced Studies, and repeatedly adviser to editors of learned periodicals such as *Zeitschrift fur Papyrologie und Epigraphik* and *Phoenix*.

JOHN MACNAMARA, Department of Psychology, McGill University has contributed substantially to the practical and theoretical aspects of language learning. He has worked on problems of bilingualism first in Ireland, then in Canada. With time his work has become more theoretical. Recent work has been on the cognitive basis of language learning, or simply, how children learn to talk. His current interests relate to the theoretical bases of cognitive psychology. He has examined some of the fundamental problems in psychology in the light of developments in logic. John Macnamara's knowledge of psychology, philosophy and linguistics contributes to the breadth of his contributions. He has published five books and about 50 papers. He is a scholar rich in ideas, currently highly productive, persistent in the exploration of controversial ideas, and a credit to the academic community.

M. PATRICIA MARCHAK of the Department of Anthropology and Sociology at the University of British Columbia, is a distinguished scholar who has made an outstanding contribution to the study of Canadian society. She is a Past President of the Canadian Sociology and Anthropology Association. The author of four books and thirty articles, and contributor to many edited works, she has made a special study of Canadian resource industries, including forestry and fishing, and of the role of multinational corporations in the development of the Canadian economic and social system.

MICHAEL R. MARRUS, Department of History, University of Toronto, has, in three major scholarly books and numerous articles, achieved an international reputation as one of the most distinguished scholars writing about European Jewry and other outcast peoples in this century. His books on French Jews and the Dreyfus Affair, Vichy France and the Jews (with Robert Paxton), and European refugee movements, have been critically acclaimed, widely studied, and influential in sparking scholarly debate and reconsideration. A vigorous participant in all activities of the academic and literary life, Michael Marrus has enriched Canadians and people of all countries with his scholarly insight, objectivity, and historical sensitivity.

JAMES KELSEY McCONICA, President and Vice Chancellor of the University of St. Michael's College in Toronto, medievalist and Renaissance-Reformation scholar, is an authority in the general field of European intellectual history. His principal works are concerned with

two subjects: the institutional forms of learning in medieval and 15th-century Europe, and the religious, political, and social contexts of humanist scholarship and thought. The first has recently culminated in Volume III of *The History of the University of Oxford, The Collegiate University* (1986) which everywhere reflects his magisterial shaping hand. The second is displayed in his important studies of European humanists and Tudor politics and, since 1974, his work on the prince of European humanists, Desiderius Erasmus, signally exemplified in Dr. McConica's leadership in planning and executing *The Collected Works of Erasmus*, called (by a sober critic), "one of the most massive and important enterprises of our time".

EDWARD MOZEJKO, a professor of Comparative Literature and Slavic and East European Studies in the Department of Comparative Literature at the University of Alberta, has taught literature in Poland, Denmark, and Canada, and distinguished himself with seminal books, numerous scholarly articles, and major editorial undertakings. His published research covers the period from Romanticism to post-Modernism in Slavic and other European literatures. Besides his truly multilingual background and outstanding philological skills, Mozejko's work displays a rare blend of erudition, literary sensitivity, and originality; Mozejko combines knowledge of advanced literary theories with a strong sense of history but he never neglects the particular features of individual texts. He is one of the foremost North American comparatists with a specialization in Central and East European Studies.

RICHARD JOSEPH PEARSON of the Department of Anthropology and Sociology, University of British Columbia, has won an international reputation for his indefatigable research on the archaeology of East Asia. His many publications deal with the culture history of eastern Canada, Hawaii, Japan, Korea, China, and Southeast Asia. Although his interpretive interests range widely, from palaeoecology to the development of social complexity and the study of art history, he has never sacrificed quality to breadth. His *The Archaeology of the Ruykyu Islands* is the major synthesis of the prehistory of this important region. His publications play a major role in keeping Western archaeologists informed about important advances relating to the archaeology of Japan, Korea, and China.

PAMELA STEWART, Department of Italian Language and Literature, McGill University, has gained international recognition through her numerous studies of Italian literature in the Middle Ages and the Renaissance. Her wide-ranging work on Boccaccio, her penetrating essays on the development of the novel and of other forms of art, in

particular on the theatre, as well as her reflections on aesthetics and on the relation between painting and poetry, have won the praise of literary critics in Europe and America. Her book on Gentillet, remarkable for the originality of its scholarship and the definitive character of its conclusions, has been hailed as a major contribution to the study of the reception of, and polemic against, Machiavelli, and noted for the light it sheds on cultural relations between Italy and France.

MAURICE STRONG, Chairman and President, American Water Development Inc., Denver, Colorado, has long been one of Canada's most successful and vigorous business leaders. He has combined this with an astonishing degree of public-spirited activity, much of it in support of environmental causes, and involving the use of science in the fight to put the world's problems right. Three achievements in particular stand out, the first being the organization and brilliant leadership of the Stockholm Conference on the Human Environment in 1972. This landmark event in the history of environmental concerns paved the way world wide for political and economic changes, particularly (as it turned out) in the third world area. Second was the establishment in Nairobi of the UN Environment Programme, of which he was the head for the first three years, and third, his office as UN Assistant Secretary-General for Africa famine relief in 1985-86, with the responsibility of organizing movements of food continent and even world-wide. This man has been the most successful exponent of the art of getting things done with the help of the scientist, in spite of the lack of a formal education in science. His sympathy for the work we do, and his instinct for its applicability in public affairs are quite remarkable.

MICHAEL JOHN TREBILCOCK, Faculty of Law, University of Toronto, a legal scholar with a major reputation throughout the common-law world, has combined the disciplines of law and economics to help solve some of society's problems. Author of ten books and numerous articles and reports, he exemplifies the new legal scholarship that tries to break down barriers between disciplines. His creative writings range widely over such fields as restraint of trade, commercial and corporate law, consumer protection, and the regulatory process. His recently published book, *The Common Law Restraint of Trade: A Legal and Economic Analysis*, is but his latest significant contribution to both law and economics.

Academy/Académie III

THOMAS BLOOM, Chairman of the Department of Mathematics, University of Toronto, works in complex analysis in several variables. His work on the geometry of pseudo-convex boundaries in C^n was instrumental in the better understanding of the $\bar{\partial}$-Neumann problem. His work on approximation theory established Kergin's interpolation as the correct generalization of Lagrange's interpolation from one to several variables. His articles are regularly cited. He is internationally well known as can be seen by his numerous invitations to give talks in Canada, in the United States and in Europe. He has helped to improve the atmosphere for mathematical research at the University.

JAMES K. BRIMACOMBE, Stelco-NSERC Professor and Director of the Centre for Metallurgical Process Engineering, University of British Columbia, probably has received more international awards, consultancies and invited lectureships than any other Canadian metallurgical engineer. He is particularly renowned for his research and publications in the field of mass-transfer phenomena and in the continuous casting of metals. He has developed mathematical models of mass-transfer reactions between submerged gas jets in liquid metals and for the liquid pool geometry in the continuous casting of metals. Professor Brimacombe has the ability to plan and carry out the necessary basic research in these fields and to put the results into operating processes. In addition he brings his expertise into the classroom as an outstanding teacher at all levels of the program in metallurgical engineering.

MAX CYNADER, Professor of Psychology at Dalhousie University, is widely regarded as among the ablest experimentalists working on the visual system. He has made important contributions in the general area of the plasticity and development of the neural system governing vision. His work, characterized by rigour, creativity and a search for unifying principles, has illuminated our understanding of stereopsis and the processing of visual information by the central nervous system. More recently Dr. Cynader has been extending his conceptualization to include the auditory system and the dynamic localization of sound.

DONALD ANDREW DAWSON, Professor of Mathematics and Statistics at Carleton University, has made a broad variety of basic contributions to the description and analysis of physical systems in which random elements play an essential role. He works at the heart of modern probability theory and at such a level of generality that virtually any temporal model is a particular case of his work, but he seems always to

have a eye open towards practical applications. In particular he has introduced the concept of multiplicative or branching measure diffusion process and created the method of Gauss-Galerkin numerical approximation.

WILLIAM A.G. GRAHAM is Professor of Chemistry at the University of Alberta. As well as being a major force in the moulding of inorganic/organometallic chemistry within this country over the last 20 years, he has an outstanding international reputation in this area and has been also a foremost ambassador worldwide for Canadian chemistry. His recent discoveries on activation of carbon-hydrogen bonds in saturated hydrocarbons, including methane, a long recognized problem in homogeneous catalysis, by the use of platinum metal complexes are truly remarkable and pioneering studies that will be strongly influential in the future development of this extremely exciting topic.

ALVIN E. HAMIELEC, Professor of Chemical Engineering at McMaster University, is noted for significant contributions to the application of transport theory to process metallurgy and cloud physics, for the establishment of gel permeation chromatography as a routine tool for polymer characterization, for the development of widely-accepted polymerization models, and for service to the chemical industry as a consultant and professional educator.

CHARLES H. HOLLENBERG, Vice Provost of Health Sciences at the University of Toronto, has achieved international recognition for work in two areas of lipid metabolism. Firstly, he has elucidated the mechanisms of uptake of fat into adipose tissue for storage and its transfer therefrom in times of muscle energy need. In particular, he has clarified the role of insulin in fat mobilization. His work is the foundation of much present knowledge of fat storage and utilization. Secondly, from his studies of DNA synthesis in fat cells, he has demonstrated that these cells can replicate. These studies greatly clarify the genesis of obesity and have stimulated work on the replication and differentiation of fat cells.

JOHN B. HUTCHINGS, Senior Research Officer at the Dominion Astrophysical Observatory, Herzberg Institute of Astrophysics, in Victoria, B.C., has used a wide variety of observational methods to study the loss of mass from evolving hot, luminous stars, including novae. He has also intensively studied close binary stars that contain a compact star interacting with its cooler companion. This work has led him to identify two probable black holes in the Large Magellanic Cloud. In recent years, he has also studied the structure and nature of quasars, some of which are believed to be the most distant objects known in the Universe.

NATHAN ISGUR, Department of Physics, University of Toronto, has made important contributions to the understanding of hadrons - the family of particles from which the atomic nucleus and similar structures are built. His work on baryons has become the standard reference for the spectroscopy and decays of these particles. This work has been generalized to explain the forces between protons and neutrons in the atomic nucleus. In the same general direction, Dr. Isgur and his co-workers have generalized the quark model to include the motion of strings, and have found the limitation of perturbative methods in describing quarks and gluons.

ROSE M. JOHNSTONE, Chairman of the Department of Biochemistry at McGill University, did pioneering work in the isolation of plasma membranes from nucleated cells and her studies showed that isolated membranes had all the known properties of solute transport. A membrane potential difference was a major energy source for Na^+ dependent transport. Her next important contribution was the introduction of fluorescent dyes to follow membrane potential changes during amino acid transport. From these studies it was determined that transport of neutral amino acids coupled to Na is electrogenic during the influx as well as efflux. The direction of net flux of an amino acid could be a major determinant of the measured membrane potential. More recently Dr. Johnstone has been studying the loss of the transferrin receptor during reticulocyte maturation and demonstrated that this process involves the removal of a protein from the membrane and its release in a retrievable vesicle.

ROGER KNOWLES, Chairman of the Department of Microbiology, MacDonald College, McGill University, has an international reputation for his outstanding studies of physiological and ecological aspects of nitrogen transformations in terrestrial and aquatic systems. He has critically examined the methods used to study these transformations and his contribution of pure culture, laboratory model system and *in situ* investigations has led to significant advances. For example, his examination of the acetylene reduction method for measuring nitrogen fixation led to the discovery of a new, sensitive and cheap method for the assay of denitrification. Dr. Knowles was the recipient of the CSM Award for 1982 from the Canadian Society of Microbiologists for his outstanding contribution to research in microbology.

MANUEL PHILLIP LANGLEBEN is Professor of Physics at McGill University. A physicist by training, he has had a distinguished career first in meteorology and later and more extensively in studies of the physics of sea ice. His experiments have covered a wide range but two fields may be

singled out. He has contributed greatly to our understanding of sound transmission in sea ice and of the reflection of sound waves at the ice-water interface. His series of papers on the albedo of melting sea ice has been definitive; this is a key factor in predicting the breakup of sea ice, which is an important subject of great theoretical difficulty.

KARL P. LEDERIS, Professor of Pharmacology at the University of Calgary, did pioneering studies on the brain neurohormones of the posterior pituitary gland, or neurohypophysis, in vertebrate animals to clarify the mechanisms of neurohormone storage and secretion. More recently he discovered a unique and important action of the neurohypophysial neurohormone oxytocin in energy metabolism. He has been a leading figure in determining the structure of the peptide neurohormones secreted from the tail-end or urophysis of the spinal cord of fishes. Studies on these special peptides have led to unique findings on the role of peptides in the regulation of blood pressure.

ROY O. LINDSETH, President and Director, Teknica Resource Development Ltd., founded the first Canadian service company to apply computers to geological mapping and well log analyses. His development of digital forward modelling to produce synthetic seismograms from sonic logs resulted in the widely used "Sonogram" library. He pioneered seismic signal processing in 1967, developing original frequency domain operations and the "Compac 75," the first complete mini-computer seismic system in Canada. He invented the "Seislog" seismic inversion process in 1972, permitting estimates of subsurface lithology and porosity from seismic data. The related development of colour coding to indicate geological velocity changes led to widespread use of colour graphics in geophysical data reduction.

MARGARET E. McCULLY, Professor of Biology at Carleton University, is a plant scientist with an international reputation for outstanding research in the fields of plant histology and plant development. Her work on the fine structure of the brown algae and the developmental histology of maize roots is first class and she has contributed many histochemical techniques for improving plant microscopy. Especially notable is her recent study of the morphology and functioning of maize roots and their rhizospheres in field grown situations, which has provided much new information on root:soil:microorganism interrelationships. Dr. McCully has published extensively in international journals of the highest repute and is co-author of two excellent books dealing with Plant Structure and Development.

ANTHONY JOHN MERER, Professor of Chemistry, University of British Columbia, has solved some extremely complex and baffling spectroscopic puzzles. He has also developed new computational and experimental approaches for a variety of different problems. Among his achievements are the analyses of the spectra of short-lived triatomic radicals like CCN, the discovery of the geometrical structure of the Rydberg states of ethylene, the analyses of the ultraviolet absorptions of carbon disulfide and sulfur dioxide, and most recently, the analyses of the spectra associated with the high spin multiplicity states of vanadium oxide and ferrous oxide. His originality has established him as a world leader in molecular spectroscopy.

ARNOLD NAIMARK, President of the University of Manitoba, is an outstanding spokesman in support of the University community in Canada, particularly in his commitment to scientific research. His articulate and devoted backing of Canadian research is strengthened by his own outstanding record as biomedical investigator, teacher and former Dean of the Faculty of Medicine, University of Manitoba. His remarkable achievements in science and in the governance of higher education have placed him in the forefront of academic leaders who are eloquently championing the role of the university and research in our society.

P. JAMES E. PEEBLES, Einstein Professor of Physics at Princeton University, has been the key person responsible for the recent development of the study of the early universe into a science. He is responsible for key tools in the development of observational tests of theories of the early universe, from the 3^{O} microwave background to large scale correlations in the structure of the universe. His books and papers have been masterful in their presentation of ideas in terms of simple, but penetrating physical arguments. His work has been largely responsible for the current explosion of interest in physical cosmology.

ASER ROTHSTEIN, Director of the Research Institute at the Hospital for Sick Children in Toronto, is best known for his innovative studies on molecular mechanisms of ion transport, first with red cell membranes, and later with other types of mammalian cells and tissues. He has established an international reputation in his field as indicated by the many invitations he receives to present papers, to attend symposia, to write review articles, to act on editorial boards and peer review committees and to serve as visiting professor throughout the world. Dr. Rothstein has been equally successful as a scientific administrator and he is generally acknowledged to have few peers in this area.

JOHN JOSEPH SIMPSON, Professor of Physics, University of Guelph, has made several important experimental contributions to nuclear and elementary particle physics, especially to our knowledge of the mass and nature of neutrinos - the most elusive of all particles. Dr. Simpson has invented a new and very simple method to measure the neutrino mass by tritium implantation in an x-ray detector; this method led him to new limits on the mass of the neutrino. He has obtained information on the neutrino through the determination of a new limit on the double beta decay lifetime in the largest germanium detector ever constructed and operated underground in a salt mine.

JOHN E. THOMPSON, Chairman of the Department of Biology at the University of Waterloo, is recognized nationally and internationally for his distinguished contributions to the understanding of plant senescence. His pioneering work in this field has established that membrane deterioration plays a pivotal role in the aging process. Through a combined biochemical and biophysical approach, he and his students have elucidated a sequence of changes in the molecular organization of membrane lipids during senescence that leads to destabilization of the bilayer and ensuing loss of membrane function. They have characterized various manifestations of this destabilization including lipid phase separations in the bilayer, bulk lipid rigidification and the formation of non-bilayer lipid. Their studies of the biochemical basis for these changes and of the physiological implications of a destabilized bilayer have significantly enhanced our understanding of the mechanisms underlying capitulation to aging (and certain types of environmental stress).

STEPHEN S. TOBE, Professor of Zoology at the University of Toronto, is a leader in research in insect endocrinology. He has developed and exploited the radiochemical assay for juvenile hormone production to study the pathway of juvenile hormone biosynthesis, the regulation of juvenile hormone biosynthesis and release, and the role of this hormone in reproduction and metamorphosis. His work focusses on the feedback loops between the central nervous system, the endocrine glands and the reproductive organs which show remarkable similarities with comparable vertebrate systems. Since 1967 he has published 100 papers, showing him to be one of the most productive biologists in Canada. This has been recognized by awards such as the Steacie Memorial Fellowship in 1982.

ANNE WHYTE, Director, Social Sciences Division of the International Development Research Centre, is a geographer who has achieved great stature as an interdisciplinary student of the human environment, of risk perception and assessment, and of natural resource policy in developing countries. She has developed a significant body of theory on which she

can base empirical and applied work in the field. She has demonstrated that common themes run through such diverse fields as the human ecology of the Oaxaca Valley in Mexico in contemporary and pre-Columbian times, the public perception of hazard in modern industrial societies, and the design of rural water improvement schemes. Her international work in SCOPE and UNESCO is highly regarded. She was the academic member of Canada's UNESCO General Conference delegation in November 1983 and served as Senior Program Officer in the Man and the Biosphere program of UNESCO from 1984 to 1986.

E. JAMES WOODS, Professor of Mathematics at Queen's University, has been, for more than twenty years, one of the world's leading researchers in operator algebras and their relations with mathematical physics. He and Dr. Araki obtained an absolutely remarkable classification of factors. Their work on what are now called the Araki-Woods factors is acknowledged to be a cornerstone of the theory of injective von Neumann algebras, one of the monumental structures in mathematics. An application of this theory, by Drs. Woods and Connes, has produced a new, deep result in classical ergodic theory.

RAYMOND N. YONG, Director of the Geotechnical Research Centre at McGill University, has made outstanding contributions to many areas of geosciences and geotechnical engineering. He is probably best known for his investigations of the nature of the bonds among clay particles. The original experimental methodology he used in that research can serve as a model for all future studies. His masterly treatise on soil strength and properties, published in two books with B. Warkentin, has become a classic used in many universities. He has also made remarkable achievements in traction mechanics, with a particular emphasis on the trafficability of soils and snow for offroad vehicles. In 1976, he formed the McGill Geotechnical Research Centre, which, under his direction, has made notable achievements in the area of treatment of gel-like watery sludges created by petroleum extraction from tar sands. His work has led to many awards, including the Killam Prize and the title of "Chevalier de l'Ordre du Québec".

OTHER MEETINGS

Society and Academy Committees met at business meetings from 31 May to 3 June.

A general symposium on "Acquired Immunodeficiency Syndrome" was held on Monday, 1 June, and another general symposium on "Global

Change: Towards a National and International Program" was held in the afternoon of Wednesday, 3 June. The Academies held symposia and heard separate papers. A workshop on "Managing Global Change" was held on Thursday, 4 June. The program of conferences appears as an appendix: Order of Proceedings for the Annual Meeting. Selected papers will appear in the *Transactions*.

On Monday evening, Fellows and guests attended a dinner hosted by His Worship Mayor Robert Morrow and the Members of the Hamilton City Council at the Hamilton Convention Centre followed by a Concert in Hamilton Place given by the Hamilton Philharmonic Orchestra and featuring the Fanfare composed for the Royal Society by Dr. Hugh McLean, F.R.S.C.

On Tuesday evening, Fellows and guests attended a reception in the Royal Connaught Hotel which was followed by the annual dinner in the Ballroom. The honoured guests were Dr. A. A. Lee, President and Vice-Chancellor of McMaster University and Mrs. Lee. The President presented to the laureates the Awards of the Society for 1987.

ANNUAL BUSINESS MEETING

The Annual Business Meeting was held in Room B128 of Togo Salmon Hall, McMaster University, Hamilton at 5:00 P.M. on Tuesday, 2 June. Eighty-one Fellows were present.

The President, Dr. Alexander G. McKay, welcomed the members and called this 105th meeting to order.
MOVED *by Dr. Robert Hubbard, seconded by Dr. J.A. Leith, that the minutes of the meeting held on Tuesday, 3 June 1986 be approved as circulated in the Proceedings, Fifth Series, Volume I, 1986.* CARRIED

REPORTS/RAPPORTS

Representatives of each Academy presented brief reports of their academies.

Academie I: Le président, M. Jean-Pierre Wallot, présente le rapport qui se lit comme suit: "L'Académie I s'est réunie lundi midi. Pour l'année 1987-88, le Conseil de l'Académie sera composé de son bureau soit: M. Naïm Kattan, président; M. André Raynauld, vice-président; M. Gérard Bélanger, secrétaire; M. Jean-Pierre Wallot, ancien président ainsi que de MM Gérald Beaudoin, François Duchesneau, Maurice Lebel, Jacques

Légaré, Gilles Paquet, Guy Sylvestre." Le rapport complet de l'Académie I paraît à la page 41.
M. Wallot, appuyé par M. Bélanger, proposa l'adoption du rapport.
APPROUVE

Academy II: The President, Dr. Karol J. Krótki, reported for the Academy. "The business meeting of the Academy was held Tuesday, 2 June, at 3:30 p.m., at which time a new slate of officers was voted in. A written report will be submitted. The problem of the procedure of the election of new Fellows was passed to Council of the Society for decision. The question of the rearrangement of meetings is to be considered by Council as well." The complete report is at page 45.
MOVED *by Dr. Krótki, seconded by Fr. E.A. Synan, that the report of Academy II be accepted.* CARRIED

Academy III: The president, Dr. A.T. Stewart, presented the Academy's report. "The complete new slate of officers will be submitted. The officers of the Academy for the coming year are: president, Dr. E.A. McCulloch; vice-president, Dr. C.R. Barnes; secretary, Dr. W.B. Kendrick, and Dr. A.T. Stewart is the past president." The complete report is at page 51.
MOVED *by Dr. Stewart, seconded by Dr. McCulloch that the report of Academy III be accepted.* CARRIED

THE REPORT OF COUNCIL/LE RAPPORT DU CONSEIL

The President reviewed the Report of Council which contained the report of the Annual Business Meeting for 1986 and other meetings, the election of new Fellows, deceased Fellows, the reports of the Awards Committee, the Honorary Editor, the Foreign Secretary, the Committee on Symposia, and the Honorary Treasurer.

Dr. Lee Lorch directed a question to the Foreign Secretary concerning the impediments which the United States placed on those scholars of the International Council of Scientific Unions who wished to attend a conference in Cuba. The U.S. Government forbids the use of American funds for attendance at conferences in Cuba. This will affect the members of the International Congress of Psychologists who will meet at the University of Havana in late June. Dr. Lorch asked what the Royal Society might do. The matter was taken into advisement by the President.
MOVED *by M. Wallot, seconded by Dr. Kendrick that the Report of Council be accepted.* CARRIED

BY-LAWS/REGLEMENT

The Honorary Secretary spoke on the amendments to the By-laws. Portions underlined indicate the change.

By-law 12.3: In order to relieve the pressures felt by Academies II and III, because of the long lists of candidates for election, on the recommendation of the Committee on Fellowship, Council in January 1987 agreed that they be authorized to elect five more Fellows each per year for two years subject to the General Assembly's approval to an amendment to the By-laws. It is understood that the two academies concerned will make every effort to ensure representation by regions, by female scientists and researchers, and from smaller institutions. Academy III is also to ensure that a greater number of francophone scientists are considered for election. Académie I, which did not request an increase for itself, strongly supports this last proviso.
MOVED by M. Légaré, seconded by M. Bélanger that sub-paragraph 12.3.1.2 be deleted and replaced by a new sub-paragraph 12.3.1.2 "For the period from July 1, 1987 to June 30, 1989 additional new Fellows may be added according to the following schedule:

Academy II, not more than five in each year
Academy III, not more than five in each year." CARRIED

Statut 12.3: Les Académies II et III subissent des pressions causées par les longues listes de candidats à l'élection. Sur recommendation du Comité relatif aux membres, le Conseil, en janvier 1987, a autorisé ces deux académies à élire chacune cinq nouveaux membres pourvu que l'Assemblée générale ordinaire consente à une modification aux Statuts. Il fut entendu que les deux académies concernées par ces changements feront un effort spécial pour mieux refléter l'ensemble des régions du Canada, les savants de sexe féminin ainsi que les petites comme les grandes universités. Quant à l'Académie III, elle devra s'efforcer d'élire un plus grand nombre de francophones. Cette dernière condition est particulièrement importante du point de vue des représentants de l'Académie I qui consent à maintenir le même niveau de nouveaux membres.
M. Légaré, secondé par M. Bélanger, proposa que le sous-paragraphe 12.3.1.2 soit supprimé et remplacé par un nouveau sous-paragraphe 12.3.1.2.

"Du 1er juillet 1987 au 30 juin 1989, des candidatures supplémentaires peuvent être acceptées comme suit:

cinq dans l'Academy II
cinq dans l'Académie III." APPROUVE

Concerns were expressed that the quantity was increased rather than the quality of the membership improved. M. Légaré explained that there was a long waiting list, and that this By-law had a time restriction of two years. Dr. Laponce also remarked that some disciplines, such as Psychology, were not well represented. It was to be hoped that the new By-law would ameliorate this situation.

The motion was carried with 1 against, and 5 abstentions.

By-law 9.2.4: When Mr. Dence became Executive Secretary Designate, he was replaced as Honorary Treasurer by M. Gilles Paquet who graciously accepted the position "until the next meeting of the Society." To prevent the replacement of the Honorary Treasurer and the President in the same year, it is desirable that M. Paquet's mandate be prolonged one year - to June 1988 - which would in fact complete the three-year term and stagger the turn-over of officers.
MOVED *by M. Légaré, seconded by Dr. Krótki, that By-law 9.2.4. be suspended for one year as it concerns only M. Gilles Paquet as Honorary Treasurer pro tem to permit his term of office to be extended to the June 1988 meeting of the Society.* CARRIED

Statut 9.2.4: Lorsque M. Dence fut nommé Chef désigné du Secrétariat il fut remplacé par M. Gilles Paquet qui consentit généreusement à occuper "le poste jusqu'à la prochaine réunion de la Société." Afin de ne pas être obligé de remplacer le Trésorier de la Société en même temps que son Président, il est souhaitable de prolonger d'un an le mandat de M. Paquet - jusqu'au mois de juin 1988 - ce qui aurait pour effet de compléter le mandat de trois ans de M. Dence et échelonner le roulement des membres du Bureau.
M. Légaré, appuyé par M. Krótki, proposa que le Statut 9.2.4 soit suspendu pour un an en ce qui concerne seulement le poste de Trésorier intérimaire occupé par M. Paquet pour autoriser le prolongement de son mandat jusqu'à la réunion de la Société en juin 1988. APPROUVE

ANNUAL SUBSCRIPTIONS

The Fellowship, over the last year, has received a number of papers concerning the financial situation of the Society. The General Fund has

had a deficit for the last two years. It is necessary to increase the dues to provide a more stable financial base for an expanded scale of operation and a more visible Society.
MOVED *by M. Paquet, seconded by M. Wallot, that for Fellows who have not attained the age of 65 on 1 April of 1988, the annual subscription be increased to one hundred ($100.00) dollars per year, and that for Fellows aged 65 on the 1st day of April of 1988, the annual subscription be increased to thirty-five ($35.00) dollars per year.* CARRIED

COTISATION ANNUELLE

Depuis un an les membres ont reçu plusieurs missives concernant la situation financière de la Société. Le fonds général de la Société a terminé les deux dernières années en déficit. La cotisation annuelle doit être augmentée afin de mieux stabiliser le financement de la Société pour lui permettre des opérations plus importantes et augmenter sa présence.

M. Paquet, appuyé par M. Wallot, proposa que la cotisation annuelle des membres qui n'ont pas atteint l'âge de 65 ans le 1er avril 1988 soit de cent dollars (100.00$) par année et celle des membres qui ont atteint l'âge de 65 ans le 1er avril 1988 soit de trente-cinq dollars (35.00$) par année.
APPROUVEE

HIRING OF FOREIGN SCHOLARS

A motion concerning the hiring of foreign scholars had been tabled at the Annual Business meeting of the Society in Winnipeg on 3 June, 1986 by Academy II. The motion reaffirmed the Society's opposition to regulatory impediments to the recruitment and appointment of non-Canadians to academic, scholarly and research positions in Canada.
MOVED *by Dr. Scott, seconded by Dr. Winch that the tabling of this motion be lifted.* CARRIED.

Dr. Scott explained the recommendation of Council of 1983 which opposed Government regulations issued by the department of Employment and Immigration that initial advertising be directed exclusively to Canadians or Canadians of landed immigrant status. It recommended that the policy of 1981 be rescinded in favour of the regulations which were in effect prior to that date.
MOTION by Dr. Scott, seconded by Dr. Winch that *the Executive reiterate to the Minister the Society's position of 1983 that the 1981 policy should be rescinded, and inform the Minister that it speaks with the authority of the Annual Business Meeting of the Society.*

Discussion centred around the pros and cons of hiring foreign scholars. Dr. Winch emphasized that the new motion supersedes the old as it refers to the background of the intent. Some points discussed were:

1) the benefits of an international faculty;
2) the slowness of the Immigration Office and the problems it causes;
3) the need for more Canadian courses;
4) preference for an on-going watch rather than change;
5) the drain of Canadian graduates to the United States but the relative freedom to hire from the U.K.;
6) Canadian needs should be a responsibility of institutions rather than have Immigration create problems by edict;
7) the importance of giving Canadians a fair opportunity;
8) the problems of exclusive advertising;
9) the severe competition for competent researchers and professors in many fields;
10) the Minister should be informed of the background of the issue and the department should make a basic statement.

The motion was CARRIED with 16 against and 4 abstentions.

OTHER MATTERS

Dr. Gotlieb, supported by Dr. Woods, made a personal recommendation that the Council appoint a panel to make a statement on the Strategic Defence Initiative (U.S.A.)

REPORT OF THE PRESIDENT AND VOTE OF THANKS

The President expressed his thanks to Dr. McLaren and Mr. Dence for their efforts in improving the visibility of the Society. Recognition was extended to NSERC, SSHRCC and Health and Welfare Canada for their financial support. Thanks were expressed to the Honorary Editor and his committee, the Honorary Secretary, the Honorary Treasurer, to Dr. Shaw for his work on the Medals committee, to Dr. Krótki who chaired the Annual meeting program committee and to Dr. Skilling for his dedicated work on Freedom of Scholarship and Science; Mr. Justice Tarnopolsky succeeds Dr. Skilling as chairman of this committee and Dr. R.C. Pratt is to be Associate Chairman. His Honour Robert Morrow, mayor of Hamilton, was thanked for his hospitality.

Plans are underway to obtain a recording of the fanfare composed by Dr. Hugh McLean on the occasion of the Society's Centenary.

The President expressed his thanks to Dr. Hurst and congratulated him on his role in achieving the creation of the Canadian Academy of Engineering. The President also expressed his thanks to Mr. Garneau for his seventeen years of service who, in response, stated that he left the Society with pride in its accomplishments and with satisfaction in its legacy of strength.

THE NEW PRESIDENT

Dr. Digby J. McLaren thanked the Past-President, Dr. McKay, for leading the Society for three years, and presented him with a tangible memento of his presidency. He also expressed his gratitude to the membership for his election. He anticipated with confidence the cooperation of all Fellows to ensure the progress of the Society.

AUDITORS

MOTION: *Dr. T.F. W. Embleton, seconded by Dr. McCulloch, moved that McCay, Duff and Co. be retained as auditors for 1987-1988.* CARRIED.

NEXT ANNUAL MEETING

The next Annual Meeting is to be held on 5 to 8 June, 1988 at the University of Windsor, Windsor, Ontario.

OTHER BUSINESS

Dr. Krótki expressed his thanks to Dr. McKay for his interventions in making the Annual Meeting during McMaster University's Centenary a memorable one.

Dr. Winch inquired whether the Mission Statement and Corporate Plan would be discussed. M. Paquet urged the members to discuss, scrutinize and correct the Statement and Plan and to contact the Past-President, President, or Honorary Treasurer. He emphasized that the document would be accepted *pro tem* and used as a guideline until it could be formally accepted. A regional phone campaign is planned to encourage participation in the Society of the general membership.

There being no other business, Dr. Stewart, seconded by Dr. Hurst moved that the meeting be adjourned. CARRIED. 6:30 p.m.

Presentation of Awards
Présentation des distinctions

LA MEDAILLE CHAUVEAU

Benoît Lacroix, s.r.c.

Le père Benoît Lacroix, de l'Université de Montréal, est le gagnant cette année de la médaille Chauveau de la Société royale du Canada. La contribution de Benoît Lacroix aux humanités est des plus remarquables. Médiéviste reconnu internationalement pour ses études savantes sur Orose et l'historien au moyen âge, il a toujours été professeur et chercheur rattaché à l'Institut d'études médiévales de l'Université de Montréal; il a aussi été enseignant à l'étranger. Une de ses grandes préoccupations depuis plus de dix ans a été la culture et la religion populaires en Amérique du Nord.

La plupart de ses publications depuis 1950 - quinze livres et de nombreux articles - tentent d'établir, au niveau de la religion traditionelle, les liens plus ou moins avoués qui existent entre le peuple d'ici et ses ancêtres médiévaux. Il en communique les résultats dans des colloques et dans des ouvrages tels que *La religion de mon père* (1986).

Benoît Lacroix est aussi responsable de l'édition critique des oeuvres de Saint-Denys Garneau (1971) et de celles de Lionel Groulx (1984). Le père Lacroix est membre-fondateur du Centre d'interprétation des nouvelles religions. En collaboration avec la compositrice Anne Lauber, il a rédigé le livret de l'oratorio Jesus Christus, créé à l'église Notre-Dame en 1986 par l'Orchestre métropolitain de Montréal.

Né à Saint-Michel-de-Bellechasse en 1915, le père Lacroix a obtenu son baccalauréat à l'Université Laval (1936), sa licence en théologie (1941) au Collège dominicain ainsi que sa licence et son doctorat en études médiévales (1946 et 1951) à l'Institut pontifical des études médiévales de Toronto. Il est membre de l'Ordre des frères prêcheurs (Dominicains) de Montréal.

Le père Lacroix a longtemps été associé à différents conseils des arts, organismes professionnels et groupes universitaires à titre de membre de jurys, de participant ou de président. En 1981, il recevait le prix Léon-Gérin de la province de Québec et était fait officier de l'Ordre du Canada en 1985. Il a publié 16 livres ainsi qu'une centaine de communications et participe à des émissions de radio et de télévision depuis 1977.

LE PRIX SIR WILLIAM DAWSON/ THE SIR WILLIAM DAWSON AWARD

Gérard Dion, s.r.c.
F. Kenneth Hare, F.R.S.C.

Le Prix Sir William Dawson de la Société royale du Canada, décerné pour la première fois cette année, vise à récompenser les contributions importantes et durables dans au moins deux différents domaines d'intérêt général pour la Société ou dans un vaste champ d'études universitaires qui transcende les limites des disciplines traditionnelles.

Le professeur Gérard Dion and Professor Kenneth Hare are the co-winners of the 1987 Dawson Award.

Le professeur Dion du département des relations industrielles de l'Université Laval, est un des pionniers de l'étude des relations industrielles au Canada, et il y est encore vigoureusement actif. Plus qu'un professeur, un chercheur et un écrivain, il a été, directement ou indirectement, le maître de presque tous les Canadiens qui ont oeuvré, depuis la Seconde Guerre mondiale, dans le domaine des relations industrielles, non seulement au Canada français, mais également au Canada anglais.

Il a joué un rôle de premier plan dans la formation des Canadiens engagés dans l'enseignement et la recherche en relations industrielles au Canada, associant son nom en particulier à la revue universitaire de calibre international, *Relations industrielles/Industrial Relations*.

Another major contribution has been the *Dictionnaire Canadien des relations du travail*. This publication, bilingual and rather unique in style, has become essential reading for all the practitioners, teachers and students of industrial relations not only for the high quality of research but simply for the knowledge it transmits.

Bref ses travaux empreints de la clairvoyance et de l'intégrité d'un universitaire chevronné, laissent transpercer l'ardeur d'un honnête homme préoccupé de la qualité de la vie sociale de ses concitoyens.

Le professeur Kenneth Hare de l'Université de Toronto est né en Angleterre et est diplomé des Universités de Londres et de Montréal.

Dr. Hare joined the Department of Geography and Meteorology of McGill University in 1946, and his interest in climatology and the

north had enormous influence on the development of the subject at McGill. This development attracted scientists in the day when there were virtually no climatologists in Canada, and led to such daring enterprises as the McGill-Jacobsen Expeditions.

His early research on northern climate is recognized as the first qualitative examination of climate carried out in Canada and has led to many new concepts, such as the zoning of the boreal forest, climate dynamics and the distribution of open water in the Arctic. This research later expanded to include topics of fundamental meteorology such as atmospheric circulation, ozone distribution and disturbances of the stratosphere.

During his career at the University of Toronto, Dr. Hare tirelessly applied his knowledge of basic meteorology and climate to some of the most pressing problems of modern society - atmospheric pollution (acid rain, lead emissions) and the possible catastrophic effects on climate of nuclear explosions.

THE THOMAS W. EADIE MEDAL

Alexander McLean

Professor Alexander McLean, Faculty of Applied Science and Engineering, University of Toronto, is the winner of the Thomas W. Eadie Medal of the Royal Society of Canada for his substantial and sustained contributions to the science and profession of metallurgical engineering.

Professor McLean has made lasting contributions to the metallurgical engineering of steelmaking and has established an international reputation in research and teaching in the field of physical chemistry of iron and steelmaking. Through a combination of ability, boundless energy and personal charm, he created, in 1984 a unique research community - the Ferrous Metallurgy Research Group - at the University of Toronto. With McLean as its Director, the FMRG has become a leader in North America in the study of the chemical and physical aspects of steelmaking.

Professor McLean has provided outstanding research through extensive participation in the activities of professional societies in Canada and the U.S. He has also pursued his interest in promoting and achieving meaningful university-industry cooperation in both the science

and practice of steelmaking. His significant research contributions are both fundamental (levitation melting studies of the thermo-dynamics and kinetics of gas/metal reactions and of surface tensions of ferrous alloys; thermodynamics and kinetics of gas dissolution in slags) and applied (prevention of reoxidation of steel in the tundish and in casting, ladle metallurgy; water model studies of fluid flow in continuous casting, plasma studies of the production of iron, steel and ferro-alloys).

In 1986 he was appointed one of two AISI Distinguished Professors by the American Iron and Steel Institute, in recognition of his contribution to steelmaking. NSERC invited him as one of the few researchers to submit an application to launch its new University-Industry Interface Program four years ago.

Born in Scotland in 1936 Professor McLean earned his B.Sc. and Ph.D. from the University of Glascow. He has co-authored three books and published more than 80 papers.

THE JASON A. HANNAH MEDAL

Toby Gelfand

Dr. Toby Gelfand is the winner of the Jason A. Hannah Medal of the Royal Society of Canada for his book *Professionalizing Modern Medicine: Paris Surgeons and Medical Science and Institutions in the 18th Century.*

Gelfand's book deals with the history of medicine in 18th-century France when physicians and surgeons came together in a common profession. The role acquired by surgeons in Paris was to have a profound, enduring and beneficial effect on the organization of medicine throughout the western world. This work reflects careful, thorough scholarship and constitutes a useful contribution to the history of medicine. Gelfand subjects his sources to close critical scrutiny and displays sound knowledge of the social and scientific conditions of 18th Century France. He demonstrates a commendable historical sensitivity to the institutional characteristics of the *ancien régime* and to the role of the French monarchy as both a source and an arbiter of institutional conflict.

THE INNIS-GERIN MEDAL

Anthony D. Scott, F.R.S.C.

Anthony D. Scott, Professor of Economics, University of British Columbia, is the 1987 winner of the Innis-Gérin Medal of the Royal Society of Canada.

Dr. Scott has made lasting contributions to the study of resources and conservation; the finance of federations; fisheries economics; transfrontier pollution; benefit-cost analysis; water resources; the "brain drain"; property rights; mineral economics, and constitutional reform.

Scott's classic book, *Natural Resources: The Economics of Conservation* (1955, republished 1983), broke important new ground in the use of capital theory to study a broad range of issues in the economics of natural resources. This book led to another, *The Commonwealth in Ocean Fisheries* (1966, revised in 1973). The links between tenure and efficiency in resource developments have been central to much of Professor Scott's work, including his current work on several centuries of history relating to the emergence of property rights in mining, forestry and fisheries. Professor Scott was a member of the International Joint Commission (IJC) during 1968 to 1972 and an environmental consultant to the OECD (1972-1975). He has published more than 125 articles and papers, received several prestigious fellowships and was named an Officer of the Order of Canada in 1982.

THE McLAUGHLIN MEDAL

Henry G. Friesen, F.R.S.C.

Dr. Henry G. Friesen, Faculty of Medicine, University of Manitoba, has been named the 1987 winner of the McLaughlin Medal of the Royal Society of Canada.

Dr. Friesen is an outstanding scholar and devoted clinical and basic medical scientist who has made major contributions in the field of endocrinology and pituitary hormones. His extensive research studies on the isolation and the mechanisms of action of human prolactin are a landmark in endocrinology leading to a better understanding of the physiological control of prolactin and to medical treatment through promocriptive now used world-wide. The application of the assay for

human prolactin has had a major effect on clinical medicine in the management of amenorrhea, galactorrhea and infertility.

Dr. Friesen has also led the Medical Research Council of Canada's (McGill University) trial of human growth hormone for the therapy of hypopituitary dwarfism by coordinating the isolation of the hormone from human pituitaries and its distribution and use in Canadian patients.

Dr. Friesen was born in Morden, Manitoba, in 1934, and earned his B.Sc. Medicine and M.D. at the University of Manitoba. He began his academic and research career in 1958 at Winnipeg General Hospital, from which he went to the New England Center Hospital in Boston, the Royal Victoria Hospital in Montreal, Tufts University School of Medicine, and McGill University. From 1965 to 1973, Dr. Friesen held an Associateship at the Medical Research Council while Associate Professor and Professor of Experimental Medicine at McGill. He joined the University of Manitoba in 1973 as Professor and Head, Department of Physiology, where he is also Professor of Medicine and a member of the Health Sciences Centre, Endocrinology and Metabolism. He is currently a member of the Board of Directors, National Cancer Institute of Canada.

Dr. Friesen holds membership in Canadian and U.S. professional associations and has been active on numerous editorial boards and advisory, review and program committees. He also has an extensive publication record of more than 300 papers. His achievements have been recognized by many awards.

THE WILLET G. MILLER MEDAL

Harold Williams, F.R.S.C.

Dr. Harold Williams, Department of Geology, Memorial University, is the 1987 winner of the Willet G. Miller Medal of the Royal Society of Canada.

Dr. Williams is considered the principal architect of modern studies of the Appalachian region. His outstanding ability to integrate the results of regional geological mapping (in which his own well-conceived and beautifully executed field mapping has played a major role) into compelling tectonic syntheses is illustrated by the elegant Tectonic Lithofacies Map of the Appalachian Orogen. The Newfoundland transect, a model for the entire Appalachian Mountain system,

illuminates the history of the Atlantic Ocean basin and is of notable importance in formulating aspects of plate-tectonic theory. This compilation of the geology of Newfoundland is the most sophisticated million-scale map produced in Canada and still widely used and cited.

Dr. Williams' work has had a revolutionary effect on understanding Appalachian geology and his activities in Newfoundland have implications for interpretation of the geology of the United States, Morocco, Greenland, Scotland and Norway. Other important topical studies include the recognition of the rifting and drifting phases of the Late Proterozoic and Early Paleozic Appalachian passive marging; the nature, significance and processes of emplacement of Early Paleozoic ophiolitic oceanic crust onto the North American passive margin of Newfoundland; and the identification of several tectonic zones in the Appalachian.

Dr. Williams, through diligent field investigations coupled with acute intuition and imagination, has truly influenced geological thought well beyond the regions he himself has studied, and he has been in the international forefront of research concerning ophiolites, tectono-lithofacies analysis and the anatomy of mountain belts. Other major conceptual contributions include obduction and emplacement mechanisms of ocean floor rocks on continental crust.

Dr. Williams, born in St. John's, Newfoundland, in 1934, joined the Geological Survey of Canada in 1961 after completing his Ph.D. at the University of Toronto. He has been an invited lecturer at many conferences as well as a contributor to many study programs and publications.

THE LORNE PIECE MEDAL

Rudy Wiebe

Rudy Wiebe, novelist, is the 1987 winner of the Lorne Pierce Medal of the Royal Society of Canada.

Professor Wiebe's first novel submitted in lieu of a thesis for his M.A. in English, was published as *Peace Shall Destroy Many* in 1962. His next book, *First and Vital Candle*, followed four years later. With the publication of *The Blue Mountains of China* (1970), a saga-like story of the Mennonites in Russia, China, Paraguay and Canada, he entered the ranks of Canada's most important novelists. *The Temptations of Big Bear*

(1973) on white-Indian relations in the 1880's won the Governor General's Award for Fiction. *The Scorched-Wood People* (1977) is a story of Louis Riel from the viewpoint of the Métis. His recent novel *My Lovely Enemy* (1983) is ambitious and technically bold, indicating further imaginative advance. His passionate concern for the dignity of the novelist's art has brought a new seriousness of purpose to Canadian literature as a whole.

Rudy Wiebe studied at the University of Alberta and at the University of Tuebingen, and took a Bachelor of Theology at the Mennonite Bible College in Winnipeg. He was Associate Professor of English at Coshen College in Indiana from 1963 until he joined the University of Alberta in 1967, where he is now Professor of Canadian Literature and Creative Writing.

THE RUTHERFORD MEDAL IN CHEMISTRY

Grenfell N. Patey

Dr. Grenfell N. Patey, Associate Professor of Chemistry, University of British Columbia, is the 1987 winner of the Rutherford Medal in Chemistry of the Royal Society of Canada.

Dr. Patey is considered a leading theoretical physical chemist of his generation. The basic aim of his work is to describe, both qualitatively and quantitatively, the macroscopic properties of matter in terms of intermolecular forces. Dr. Patey has placed particular emphasis on studying water and aqueous electrolyte solutions. In the process of this work, he has developed new and powerful theoretical techniques which can be quite generally applied to polar liquids and ionic solutions. Dr. Patey's approach to the study of electrolyte solutions differs from nearly all previous theoretical treatments in that he includes the solvent as a discrete molecular species rather than as a simple continuum, as in the Debye Huckel and other theories. His work has gained him an international reputation. His appropriateness as recipient of the Rutherford Medal in Chemistry is seen when comparison is made between his particle - versus - continuum model of the solvent and Rutherford's particle - versus - continuum model of the atom.

Dr. Patey, born in St. Anthony, Newfoundland, studied at Memorial University and the University of Toronto. He was a National Research Council (NRC) Post-Doctoral Fellow at the Université de Paris, and a Research Associate at the NRC in Ottawa, before joining

the University of British Columbia in 1980. He has published more than 45 papers and has six manuscripts in progress. He is currently Professor and Researcher at the Laboratoire de Physique Théorique et Hautes Energies, Université de Paris XI.

THE RUTHERFORD MEDAL IN PHYSICS

A. John Berlinsky

A. John Berlinsky, McMaster University, is the 1987 winner of the Rutherford Medal in Physics of the Royal Society of Canada.

In his short career, John Berlinsky has established himself as a physicist of outstanding capability and breadth, making lasting contributions to each of the many fields in which he works, through absolute dedication, a high personal standard of excellence, and tireless encouragement of others. It is a clear indication of his insight into what is important that his work, always timely, also stands the test of time.

He began with theoretical studies of libron anharmonicities in solid hydrogen and his thesis represented the most sophisticated work done on solid H_2 up to that time. As a post-doctoral fellow, he produced key papers on molecular solids, including work on NMR lineshapes, nuclear-spin conversion, the ortho-hydrogen pair spectrum and neutron scattering. At the same time he collaborated on experimental work resulting in the first observation of the microwave spectrum of solid hydrogen and led the theoretical work necessary for interpreting these important spectra. His papers on nuclear spin conversion in solid hydrogen completely changed the field, exposing gross misinterpretations of experimental data that had remained unchallenged for more than a decade, and his work led to new directions.

At the University of Amsterdam in 1975 Dr. Berlinsky wrote two papers that were pivotal in the field of spin polarized hydrogen - the first showed that bulk-spin polarized atomic hydrogen would spontaneously decay via spin excitations and, therefore, be impossible to produce; the second focussed attention on the gas, and Berlinsky was first to derive the elementary excitations of Bose-condensed open-polarized atomic hydrogen. Dr. Berlinsky returned to UBC in 1977 and began a rigorous research program in many areas of condensed matter physics, mainly on low temperature atomic hydrogen, an exciting new field of low temperature physics in whose beginnings he had participated, and he played a key role in establishing and maintaining UBC as one of the top

laboratories in atomic hydrogen research. In 1981 he co-published the first calculation of the now famous T bottleneck in spin-polarized hydrogen. His calculation of the low temperature spin exchange coefficient was one of the crucial ingredients in predicting the ultimate performance of cryogenic hydrogen masers.

Professor Berlinsky, born in Washington D.C. in 1945, studied at Fordham College, New York, and the University of Pennsylvania where he obtained his Ph.D.

THE JOHN L. SYNGE AWARD

James Arthur, F.R.S.C.

James G. Arthur, Department of Mathematics, University of Toronto, is the first recipient of the John L. Synge Award of the Royal Society of Canada.

Professor Arthur's principal contribution to mathematics has been his derivation of the Sleberg trace formula for groups of rank higher than one, an important device in the analytic theory of automorphic forms. He has spent the best part of his scientific career developing the tools necessary for the exploitation of the trace formula, including his Paley-Wiever theorem and his formula contributions in their own right.

These distinguished works have made him a significant contributor to the contemporary trend toward unification in the highest levels of pure mathematics, where it is now not possible to disentangle any one aspect - analysis, algebraic geometry, algebra, topology or manifold theory - from the combined whole. His recent work on general linear groups and problems suggested by the trace formula has been praised for its progress towards a resolution of Artin's conjecture on the integral characters of L functions, and has influenced many active researchers in this primary field of the highest mathematics.

Professor Arthur is authoritatively regarded as perhaps the best and most immediately influential mathematician now active in Canada.

THE HENRY MARSHALL TORY MEDAL

Keith J. Laidler, F.R.S.C.

Dr. Keith J. Laidler, University of Ottawa, is the 1987 recipient of the Henry Marshall Tory Medal of the Royal Society of Canada for his research in chemical kinetics.

Professor Laidler is one of the twentieth-century pioneers in the remarkable progress made in chemical kinetics leading the way in the development of Transition State Theory which provide the modern kinetics theory. Much of this work is distinguished by quantitative mathematical evaluation and development of critical kinetic criteria for the understanding and elucidation of reaction mechanisms.

Professor Laidler's work includes seminal contributions in several areas of the field: gas phase reactions, kinetic aspects of reactivity of electronically excited molecules, and construction of potential energy surfaces for such processes; development of treatments for kinetics and mechanisms for surface reactions and solution reactions, introducing modern concepts of solvation through dielectic polarization effects in the treatment of ionic redox reactions and of reactions producing or consuming ions; gas phase free-radical reactions involving pyrolysis and other thermal decomposition processes; and finally, in more recent years, the kinetics of enzyme-catalysed reactions.

In this work, Dr. Laidler's contributions usually addressed critical points in the development of the subject, and his papers often led to new lines of research development and to new levels of understanding of the problems involved. In the past two decades he has concentrated his efforts on solution reactions and on reactions of biological importance.

He is the co-author of *The Theory of Rate Processes*, one of the most important books published in the field. It is a volume that almost every physical chemist requires at some time during his work. His abilities and achievements as a teacher and writer, and his concerns for the communication of science are well recognized by his students and his peers. His contributions, which comprise some 250 research publications and nine books, form a cornerstone of the subject, and he is internationally ranked as one of the top three chemists in this field .

Born in Liverpool, England in 1916, Dr. Laidler earned his M.A. and D.Sc. from Oxford and his Ph.D. from Princeton University. He joined the University of Ottawa in 1955 where he is currently Professor Emeritus, Department of Chemistry.

Reports of Academies
Rapports des Académies

ACADEMIE I: ACADEMIE DES LETTRES ET DES SCIENCES HUMAINES

Procès-verbal de l'assemblée annuelle
Université McMaster, Hamilton
Le 1er juin 1987 à 12h30

Etaient présents: G. Bélanger, E. Caparros, R. Comtois, G. Dion, J.-D. Gendron, G. Hébert, P. Hurtubise, N. Kattan, Y. Lafrance, C. Laforte, M. Lebel, J. Légaré, G. Sylvestre, M.-A. Tremblay, J.-P. Wallot (président)

1. *Adoption de l'ordre du jour*

M. Lebel secondé par G. Sylvestre propose l'adoption de l'ordre du jour.

2. *Rapport du président sur son mandat*

J.-P. Wallot termine son mandat de président de l'Académie I. Il trace un bilan de son mandat (présenté en annexe).

3. *Elections et nominations*

La composition du conseil pour la prochaine année est la suivante: N. Kattan, président; A. Raynauld, vice-président; G. Bélanger, secrétaire; J.-P. Wallot, ancien président. Les autres membres sont Gérald Beaudoin, François Duchesneau, Jacques Légaré, Maurice Lebel, Gilles Paquet et Guy Sylvestre.

Les autres nominations sont:

Comité des candidatures: G. Beaulne, G. Bouchard et P.-Y. Denis
Comité des colloques: G. Hébert et L. Marcil-Lacoste
Comité des relations internationales: R. de Chantal
Médaille Chauveau: R. Robidoux
Médaille Hannah: A. Vachon
Médaille Innis-Gérin: A. Balikci

Ces nominations sont proposées par G. Bélanger et appuyées par G. Sylvestre.

4. *Activités reliées à la francophonie*

L'académie a proposé la candidature de Fernand Dumont au Prix de la francophonie et un document a été envoyé à cet effet. Dans sa lettre, le président a aussi mentionné un appui pour la candidature d'Anne Hébert qui est proposée par d'autres organismes. La date limite pour proposer des candidatures pour le prochain prix est le 1er novembre 1987.

J. Légaré résume les démarches entreprises pour une réception en l'honneur de Georges Shéhadé, premier récipiendaire du Prix de la francophonie. Le projet est une réception chez la gouverneur-général avec une lecture des oeuvres du récipiendaire qui sera enregistrée par Radio-Canada FM.

5. *Divers*

a) L'Académie I exprime à Pierre Garneau ses sincères remerciements pour son dévouement remarquable au poste de chef du secrétariat de la Société. Les félicitations sont adressées à Gérard Dion et Benoît Lacroix récipiendaires de médailles de la Société.

b) Les deux prochaines réunions annuelles auront lieu à Windsor en 1988 et à l'Université Laval en 1989. Pour l'an prochain, il est suggéré d'organiser une rencontre avec des représentants de la communauté francophone de Windsor et de susciter des communications sur le libre-échange et l'industrie de l'automobile. Pour la réunion de Laval, il est mentionné que 1989 correspond au deuxième centenaire de la révolution française. De plus, le président de l'Académie I y sera responsable du programme du colloque de la Société. Deux sujets sont proposés: l'intégration des communautés culturelles, et la notion de progrès.

c) Il est noté que les candidats de secteurs multidisciplinaires peuvent être défavorisés dans la sélection des nouveaux membres de la Société si on leur applique des critères strictement disciplinaires.

La séance est levée è 13h 40.

Gérard Bélanger
Secrétaire, Académie des
lettres et des sciences humaines

ANNEXE A: Rapport du président sortant

Mon rapport consiste en une brève rétrospective de mon mandat à la présidence de l'Académie I (1985-1987). Il me fait plaisir de la présenter devant un nombre relativement élevé de membres et je vous remercie de votre participation au Congrès de cette année.

Il y a deux ans, mon prédécesseur concluait son mandat en laissant entrevoir un avenir à la fois difficile et prometteur. Difficile car les suites aux propositions des membres impliquaient l'existence d'un secrétariat permanent et une participation très active d'un nombre élevé d'académiciens. Prometteur aussi, compte tenu des nombreuses propositions contenues dans le document de réflexion laissé par le comité ad hoc sur les projets d'avenir de l'Académie I.

Les difficultés se sont confirmées. Le président, le vice-président et le secrétaire sont dispersés, sans l'appui d'un secrétariat permanent. Leurs énergies sont accaparées par les travaux du Conseil de l'Académie des Lettres et des Sciences humaines et de ses comités, en particulier le Comité des candidatures, par ceux du Conseil de toute la Société royale et enfin par les nombreuses présentations qui se sont déroulées ces dernières années (5 en 1985-1986, dont une à Chicoutimi, 3 en 1986-1987). L'absence d'infrastructure - hormis pour une aide certaine, mais ponctuelle, du secrétariat général de la Société - et le caractère plutôt anglo-saxon de l'ensemble de la Société ne suscitent guère un zèle débordant de nos membres vis-à-vis les activités autres que celles qui sont propres à l'Académie I. Enfin, il est clair que nos membres participent à de nombreuses sociétés savantes et qu'ils sont portés à y investir le gros de leur temps.

Pourtant, les promesses ne se sont pas dissipées. Après une étude du rapport du comité ad hoc et un sondage auprès des membres, le présent Conseil a conclu que les priorités des plus réalistes étaient les suivantes, par ordre d'importance: les séances de présentations, souvent formidables par leur intérêt et la complémentarité surprenante de certains exposés; le colloque annuel lors du Congrès de la Société royale; l'organisation de colloques d'intérêt général, mais occasionnels, ou l'appui à des colloques importants mis sur pied par des membres de notre Académie. A cause des circonstances, nous avons été forcés de travailler surtout sur les deux premières activités. En outre, une autre priorité s'est imposée d'elle-même: pour la première fois depuis quelques années, nous avons pu élire le nombre de nouveaux membres prévu aux règlements (10) en 1987. En outre, le choix des candidatures s'est effectué en tentant de combler certaines lacunes dans la

composition de l'Académie I (secteurs et groupes sous-représentés). L'élection de 7 membres en 1986 et de 11 membres (10 réguliers et 1 membre spécial) en 1987 nous laisse présager trois ou quatre présentations captivantes en 1987-88.

Permettez-moi de mentionner les candidats et candidates élus(élues) en 1987, dont les 6 premiers ont été présentés lors de la cérémonie officielle pour toute la Société, hier soir: M. Claude Castonguay, actuaire, à titre de membre spécial, Pierre Hurtubise, o.m.i., historien, Louise Marcil-Lacoste, philosophie, Yvon Lafrance, philosophie, Jean-Claude Marsan, architecture, Jean-Claude Robert, histoire, Roch Carrier, écrivain, René Dussault, droit, François-Marc Gagnon, histoire de l'art, Marc Gaudry, économique, et Laurent Mailhot, lettres françaises.

Au cours de l'année 1986-1987, nous avons aussi fait des démarches auprès du Ministère des Affaires culturelles du Québec pour obtenir une subvention destinée à financer la publication des discours prononcés lors des présentations de nos membres. Malgré un refus préliminaire pour des raisons techniques, nous entendons revenir à la charge. De même, nous sommes intervenus pour appuyer l'initiative du Secrétaire de la Société royale, M. Jacques Légaré, en vue d'organiser une activité de la Société lors du Sommet de la francophonie, à Québec, en septembre 1987. Nous avons également soumis des candidatures au Prix de la francophonie pour la prochaine année.

Au cours de la présente réunion, le Conseil actuel vous propose diverses nominations pour le Conseil et les comités, officiers et membres qui entreront en fonction à la fin de la présente réunion annuelle de la Société royale du Canada.

En conclusion, je crois qu'à moins d'une infrastructure plus importante, les membres du Conseil seront condamnés à consacrer le gros de leurs énergies aux activités essentielles de l'Académie des Lettres et des Sciences humaines: réunions, candidatures, présentations, colloques. Toutefois, il faut bien voir que le nombre de membres jeunes et dynamiques s'accroît régulièrement et qu'il y a lieu d'espérer un débordement plus visible du côté de l'organisation de colloques régionaux et de la préparation de certaines *Présentations* autour de thèmes précis et complémentaires.

Je tiens enfin à remercier les membres du Conseil pour leur appui indéfectible et à souhaiter au nouveau président, M. Naïm Kattan, beaucoup de succès au cours de son mandat à la présidence de notre Académie.

Le président sortant de l'Académie des
Lettres et des Sciences humaines
Jean-Pierre Wallot

ACADEMY II: ACADEMY OF HUMANITIES AND SOCIAL SCIENCES

Annual Business Meeting, McMaster University, 2 June 1987

The meeting was called to order at 3:35 p.m. Present: K.J. Krótki (Chairman), W.J. B. Owen (Secretary), and about twenty-five Fellows.

1. The Chairman's agenda was approved.

2. The minutes of the meeting of 3 June 1986 were approved (Robson/Leith). There were no matters arising.

3. The Academy recognized the deaths since its last meeting of H.L. Dickson, B. Fairley, E.J. Hanson, M. Laurence, J.C. Weldon.

4. The Chairman reported on:

(a) the Society's activities in the problem of the safety of atomic installations in ONSR (Ontario Nuclear Safety Review), ;

(b) the Society's activities in a demographic review and in advising Government on population trends;

(c) the activities of Mr. Dence and Dr. McLaren: regional meetings of Fellows; developing the Canadian role in the international programme on global change; stimulating general interest in the activities of the Society; the search for increased funding for the Society from various sources.

5. Dr. Robson, the Honorary Editor, explained the functions of the Editorial Committee. He commented favourably on the content and new format of the Society's newsletter, now entitled *Diversa*. He outlined the content of the Society's *Transactions* and *Proceedings*, and indicated that obituaries of deceased Fellows had been transferred from the *Proceedings* to the *Transactions*. Some back numbers of *Transactions* were still available, and of the publications *English Studies in Canada*

and *Four Hundred Years of Quebec History*. A report of the symposium on *Diet, Nutrition and Health* was in preparation; reports of the symposia on *Symbols* and on *Origins of the Universe* were in the current list of McGill-Queen's Press. Dr. Robson hoped that handling of the society's publications by McGill-Queen's Press would assist in bringing them before a wider public. An *Index* to the Transactions had been printed and bound and would be published shortly. A report on Nuclear safety would be ready by the end of the year, and also some account of the Society's symposium on AIDS, though not the papers actually presented, since the authors were unwilling to offer them for publication.

6. Employment of foreign scholars: The motion from the Academy urging the Society to reaffirm its policy in this matter had been tabled at the general meeting of the Society in 1986. The matter would be raised again at the general meeting of the Society immediately following the present meeting of the Academy.

7. Programmes for the 1987 meeting: The Chairman noted the Society's symposia on AIDS and on Global Change, and the Academy's symposia on "Canadian Editors and Diggers Abroad" and on "Science in Archeology: Contributions of the Physical and Natural Sciences to Archeological Interpretation," the second of which had been made available to Fellows of Academies I and III. Fellows complained that they had been made aware of the Workshop on Managing Global Change (4 June 1987) too late for them to make appropriate bookings of accommodation and transport; it was urged that the Society's programme be issued in future early enough to avoid such disappointments.

8. Suggestions were solicited for Society and Academy II programmes for the meeting at Windsor in 1988. Dr. Robson tentatively suggested a programme on Human Nature.

9. New Fellows: The Chairman stressed the need for confidentiality in the handling of nominations. Fellows complained of the difficulty of finding sufficient sponsors for nominations in disciplines such as philosophy and psychology, at present sparsely represented in Academy II, and suggested that support might be solicited in such cases from experts outside the Society. The Chairman observed that bylaws required that nominator and seconders be Fellows, and that seconders could usually be found among Fellows outside the nominee's discipline if necessary and if the nominee's merits were sufficiently obvious. Support from suitable persons outside the Society and additional to that of the necessary three Fellows could, however, be submitted.

A motion to refer the procedure for nomination of new Fellows to the Council of the Academy for consideration (Wevers/Synan) was carried.

Dr. Laponce (Chairman, Committee on New Fellows) urged members to continue to submit nominations.

10. Regional meetings: Dr. Halpenny reported on the success of local meetings of Fellows at various locations.

11. Nominations: Dr. Halpenny mentioned and thanked Fellows retiring from various offices and committees, and presented a slate of nominations to fill vacancies. The slate (Appendix A) was approved (MacKenzie/McKay). The officers of the Academy were authorized to fill in the remaining blanks.

12. Dr. Laponce presented his report on means of reducing the Society's expenses on administration (Appendix B). Members foresaw some difficulty in abolishing the Committee on New Fellows (A.1 in the report). Council of the Academy would study the feasibility of this and other recommendations in the report, and the comments of Fellows. The feasibility of the proposals affecting the Society will be discussed with the officers of the Society before being submitted to the Executive Committee and/or the Council of the Society.

13. Dr. Halpenny urged that a statement be provided on SSHRC's policy of matched grants for research.

14. The meeting adjourned at 4:45 p.m.

W.J.B. Owen, Secretary

APPENDIX A: REPORT OF THE NOMINATING COMMMITTEE COUNCIL 1987-1988

K.J. Krótki (Sociology, Alberta), President 1986-1988
J.A. Laponce (Political Science, UBC), Vice-President, 1986-1988
F.G. Halpenny (Library Science, Toronto), Past President 1986-1988
A.H. Richmond (Sociology, Toronto), Secretary 1987-1989

Editorial Reps: I.M. Drummond (Economics, Toronto)
J.M. Robson (English, Toronto)

J.A. Leith (History, Queen's), Symposia Committee

Members of Council 1986-1988

G.M. Story, English, Memorial
Donovan Waters, Law, University of Victoria

Members of Council 1987-1989

D. Grayson, Near Eastern, Toronto
J. Warkentin, Geography, York
G. Finley, Art History, Queen's

New Fellows Committee

Members 1986-1988

R. C. Brown, History , Toronto
A. R. Pugh, French, UNB

Members 1987-1989

F. Craik, Psychology, Toronto
J.W. Hayes, Greek and Roman, ROM
D. Laidler, Economics, UWO
A. Saddlemeyer, English, Toronto

Notes: The Chair of the New Fellows Committee is the Vice President of the Academy. The Secretary of the New Fellows Committee is the Secretary of the Academy. The President of the Academy is ex officio a member of the New Fellows Committee.

The Society's *Symposia Committee*

1986-1988	J. McMaster, English, Alberta
1987-1989	V. Nelles, History, York

The Society's *International Relations Committee*

1986-1988	J.A. Laponce, Political Science, UBC
1987-1989	S. Trofimenkoff, Ottawa

The Society's *Medal Committees*

Society's *Awards Committee*

F.G. Halpenny (ex-officio, Past President of Academy II)
A.H. Richmond (Secretary of Academy II)

Chauveau Medal for the selection of 1989

J.A. Laponce
D. Fishwick, Classics, Alberta

for the selection of 1989 and 1991

L. Lane, English, UNB

Hannah Medal for the selection of 1988

M.M. Ross, English, Dalhousie

for the selection of 1988 and 1989

I.M. Hacking, Hist of Science & Tech, Toronto

Innis-Gérin Medal for the selection 1989

J.A. Laponce
F.T. Denton, Economics, McMaster

for the selection of 1989 and 1991

Dale Gibson, Law, Manitoba

Lorne Pierce Medal for the selection of 1988

Clara Thomas, English, York

for the selection of 1988 and 1990

David Hayne, French, Toronto

Tyrrell Medal for the selection of 1988

A.P. Thornton, History, Toronto

for the selection of 1988 and 1990

R. Cook, History, York

External Awards

Continuing: J.A. Laponce
New: J. McMaster, English, Alberta

APPENDIX B: RETRENCHMENT REPORT by J. A. Laponce

Background At the January 1987 meeting of the Council of Academy II, I was asked to submit to you proposals for cutting administrative costs.

Objective Doing more with less: more academic activity; lower administration expenditures.

Suggestions I received suggestions from Professor Granatstein and Robson, and on the occasion of the Vancouver, February 20 regional meeting, I met with Francess Halpenny, Karol Krótki, Michael Dence.

Proposals The suggestions of Granatstein (cutting costs and dispensing with unnecessary meetings) and the concerns of Robson (not lowering and possibly increasing the level of participation of the Fellows in the Academy's activities) lead me to propose the following:

A) *Cut Administrative Costs*
1. Abolish the New Fellows Committee and transfer its functions to the Council of the Academy. Such transfer will not only reduce costs, it will increase administrative efficiency: the Council is larger and can thus represent more disciplines than the nominating committee.

Savings (based on the travel costs of the 1987 members of the Council and New Fellows Committees): $4,000 at full fare, $2,500 at 14 days reduced fare.

2. Abolish the September meeting of the Council. If need be, replace it by telephone or electronic conferencing.

Savings: $7,000 at full fare, $5,000 at 14 days advance booking.

3. Ask the Society to change its schedule of meetings. Start one day later in order that the meetings end on Sunday in mid-afternoon. We could thus all take advantage of the 14 days booking that requires spending Saturday night in Ottawa.

Savings (to the Academy): approximately $2,000 in January and $1,500 to $3,000 in June depending upon the location of the annual meetings.

Total Savings: A1 + A2 = $7,500 to $13,000
A1 + A2 + A3 = $11,000 to $16,500

B) *Increase Academic Activities*
Give to the Society the A3 saving. Put into the budget of Academy II the savings resulting from A1 + A2 (at least $7,500). The Council would, at its June and January meetings, allocate these funds to support academic activities (conferences, travel of guest lecturers, publications, etc.). In short, fewer trips to Ottawa for slightly longer meetings (one afternoon and one evening in June, 2 full days in January).

More important than the savings resulting from these suggested reforms would be the increase in academic activities. Furthermore, the Council becoming, effectively, an important decision-making body would improve its esprit de corps: increasing the work done in common increases friendship, which in turn, increases the willingness to do extra work.

ACADEMY III: ACADEMY OF SCIENCE/ ACADEMIE III: ACADEMIE DES SCIENCES

Minutes of the Annual Business Meeting, McMaster University, 2 June 1987

About seventy-five Fellows were present.

1. The President of the Academy, Dr. A.T. Stewart, welcomed Fellows and reported on some of his activities on behalf of the Academy. He had written to the Prime Minister, and while supporting the idea of fiscal responsibility, had pointed out that the closing of laboratories and the reduction of research funding would have the unwanted result of damaging the expectations, and the career plans, of our brightest young

people, on whom our future depends. After four months he had received a note of acknowledgment from the PMO, stating that this area was the responsibility of Mr. Oberle. Later, a long letter had arrived from Mr. Oberle, and a series of glossy, multicoloured brochures saying many of the right things, and claiming great achievements for the Government's policies. Despite these claims, there was, and is, little evidence of any truly positive action on the part of the Government. Dr. Stewart had later joined the Presidents of a consortium of scientific organizations in making a similar approach to the Prime Minister, with equally discouraging results.

Dr. Stewart had met Dr. May, President of NSERC, and had a frank discussion with him. Dr. May's attitude had been positive, and there was hope that some reforms might be forthcoming in NSERC's granting procedures.

Dr. Stewart then asked Fellows to stand while the Secretary, Dr. Kendrick, read the names of those Fellows who had died since the last meeting: Dr. D.R. Derry (ES), elected 1946; Dr. R.M. Hardy (ES), elected 1958; Dr. W.B. Lewis (AS), elected 1952; Dr. S.G. Mason (C), elected 1951; Dr. M.W. Ovenden (I), elected 1982; Dr. C.H. Stockwell (ES), elected 1936; Dr. A. Taurins (C), elected 1962.

The Minutes of the 1986 Annual Business Meeting in Winnipeg were approved on a motion by Dr. Barnes, seconded by Dr. Salter.

Ontario Nuclear Safety Review. Dr. Hurst reported that the review had been requested by the Government of Ontario. Dr. K. Hare had been appointed Commissioner, and had asked the Royal Society to cooperate. An advisory panel had been set up, with the following members: I. Burton, D. Grahn, J.M. Ham, K. Hare, J.D. McGeachy, W. Paskievici, A.T. Stewart, B.P. Stoicheff, and R. Torrie. Some members of the panel are Fellows of the Royal Society and had formed a liaison group which will bring matters of interest and concern to the attention of the Society. The advisory panel has already met, and will meet again in June. They will meet with Ontario Hydro for a technical briefing. There will be a workshop in September, at which brief summaries would be presented and discussed. The report of the panel would be ready by November, when it would be reviewed by a group specially convened by the Royal Society. Pro- and anti-nuclear positions and any minority statements will be accommodated in the report, and the final version will be in the hands of the Government by February 1988.

The terms of reference of the study are to consider: (1) Safety of design; (1) Safety of operation; (3) Adequacy of emergency planning. Dr. Hurst told the meeting that Ontario has many billions of dollars invested in nuclear power plants. Professional nuclear engineers would say that safety had been reviewed repeatedly, but the Government wanted a study that was not done privately by the nuclear profession. The budget for the study was $1,875,000. The Government would administer this, while the Royal Society would have the overview. Thirty-five consultants had been nominated or reviewed by the Royal Society panel, and final appointments were now being made. Dr. Hurst considered that the review of the final report was the most important contribution to be made by the Society.

AIDS Study. Dr. McCulloch reported that Health and Welfare had approached the Royal Society to set up this study, and that the Council of Academy III had agreed that we should do it. A meeting in February had approved an outline of aims and procedures. In May, Dr. M. Chrétien had agreed to chair the steering committee, and four study committees had been established: (1) Research, chaired by Dr. L. Siminovitch; (2) Medical, chaired by Dr. J. Laidlaw; (3) Legal and Social, chaired by Mr. Justice H. Krever; (4) Economics and Epidemiology, chaired by Dr. R. Fraser. Each of these committees has 5 members. The first draft of the report is to be submitted by October. The budget, which will be approved soon, is about $200,000 and will include some overhead for the Society. The study is to be based on the U.S. study "Confronting AIDS," but will be broader. It is not intended to be definitive, but will aim at identifying areas of concern for future work. The committees are enjoying good cooperation from the American group. Dr. D. Shaw asked if the study would lead to a publication. Dr. McCulloch assured him that it would. There would be a press conference, then publication by the Society. As a footnote, Dr. McCulloch added that the AIDS symposium at the present meeting had been so successful that most speakers, although initially reluctant, had now decided to make the texts of their talks available to the Society for possible publication.

Dr. Kendrick proposed a hearty vote of thanks to Drs. Hare, Chrétien and McCulloch for their efforts in the Society's behalf. The meeting enthusiastically expressed its approval.

COPSE. Dr. Wightman, our representative to COPSE, told the meeting that there had been an active program, with three lecture/lunch meetings in 1987 so far. In March, Dr. P. Lapp had spoken on Engineering and the Future. In April, Dr. Fyfe had spoken on Global Change. The talk had been followed by a good discussion, and Dr. Fyfe

had then been asked to appear before the Parliamentary Standing Committee on Research, Science and Technology. This appearance had been fully reported in *Hansard*, and Dr. Fyfe's stimulating remarks were well worth reading. In May, Dr. C. Scriver had spoken on Human Genetics: For Better or Worse. In June there was to be a panel discussion on AIDS, with P. Gill, N. Gilmour and I. Gemmell. The Association for the Advancement of Science in Canada was administering COPSE, but is in financial difficulties, so the Royal Society has agreed to take over, helped by Dr. Tupper's office. Dr. Wightman felt that the activities of COPSE were going better than in the past.

Foreign Affairs. M. Dence spoke for Dr. C. Smith. He pointed out that Dr. Chrétien had been our most recent representative in the exchange with France, and had visited four centres, also taking part in a meeting on France-Canada Cooperation. It was expected that this exchange would become a permanent arrangement. Dr. Davenport will be our representative in the Rutherford exchange. Dr. Holling had represented us at a meeting in Hungary, and had submitted a report. ICSU wants a report from the Society on The Use of Animals in Biological Experimentation. This was to have been prepared by Dr. Uffen's Committee on Science and Ethics, but Dr. Uffen had found it necessary to step down, and an alternative approach was being sought. Finally, Fellows were requested to send in their completed questionnaires on UNESCO initiatives to the Society Office, where they would be analysed and later made available in Minutes of Council.

Section Redefinitions. Dr. Halliday (I) suggested that some fast-emerging fields of science (particularly in biology and mathematics) were under-represented in our present sections. It was difficult for people in these fields to be either nominated or elected. He would like the Academy to set up a Committee to study this. Dr. Hare wondered if we really needed sections at all. We should work closely with NSERC, which is undertaking a similar study. Dr. Haynes is chairing the NSERC Committee concerned with a possible restructuring in the life sciences: a proposal for change is on the table. A motion was made (Hare/Mysak) that the Executive move to establish such a Committee. Some suggested names are: R. Haynes, K. Hare, L. Mysak, C. Barnes, M. Dunbar. The motion was passed. Action: Academy III Executive.

Reports of Sections. Convenors or Rapporteurs were asked to convey the names of new officers to the Secretary, Dr. Kendrick, as soon as possible, for inclusion in the new Calendar.

Mathematics Section. Dr. I. Halperin informed the meeting that, in future, the Mathematics section would hold its annual business meeting during the meeting of the Canadian Mathematics Society, held in December, which was always attended by many Fellows. The Mathematics section wondered if it might be a good idea for certain other sections to hold their business meeting elsewhere. The Chemistry section, for example, could hold its business meeting at the CIC meetings, which always seemed to conflict with the Royal Society meetings. The Mathematics section also asked that the President of the Royal Society write to the heads of the Institutions at which the Presidents of the Academies hold appointments, and request that the Presidents be granted some diminution of responsibilities so that they may serve the Society more fully.

Interdisciplinary Section. Dr. Halliday asked that the Society encourage more vigorous regional and local groups, so that issues such as the new Corporate and Fund-raising plans could be widely discussed.

Applied sciences. Dr. Runnalls noted that many Fellows of the new Academy of Engineering are also F.R.S.C.'s. To enhance cooperation, the President of Academy III should write to the President of the new Academy and invite them to nominate two observers to sit on Academy III Council.

Animal Biology. Drs. Bousfield and Peter suggested that Pollution in the Great Lakes would be a good topic for next year's meeting at Windsor.

Nominations for Officers of Academy. The Nominating Committee proposed the following slate:

Past President: A. T. Stewart
President: E.A. McCulloch
Honorary Secretary: B. Kendrick
Vice-President: C. R. Barnes

Nominations were closed, and the above candidates elected by acclamation.

Dr. E. McCulloch asked the Academy to express its appreciation to its Past President, Dr. Stewart, for the excellent manner in which he has carried out his responsibilities over the past three years. Fellows did so in the usual manner.

Dr. R. Peter (AB) put forward a proposal that the Royal Society publish a Scientific Journal modelled on publications of the U.S. National Academy of Science. Several Fellows demurred for the following reasons: (1) There would be insufficient support for such a journal, since all Fellows already belonged to specialist societies which published their own journals; (2) Finances would be a problem; the academic community in Canada wasn't big enough to support such a journal; (3) Libraries are already cutting back their journal subscriptions; this would be the worst possible time to start such a venture; (4) It would not be able to compete with extant journals. Since there was no groundswell of enthusiasm, Dr. Peter withdrew the proposal.

Dr. C. Barnes pointed out that this year's meeting had seen a quantum leap in the quality of the program. Now was the time to plan for future meetings -- the following suggestions had already been put forward: (1) Water Resources and Waste Disposal; (2) Advances in Materials Science; (3) Robotics and Artificial Intelligence -- The Canada-U.S. Space Program. He asked that any additional suggestions be sent to him within a month.

A motion for adjournment was approved.

B. Kendrick
Secretary

Order of Proceedings for the Annual Meeting
Programme du congrès pour la Réunion annuelle

ORDER OF PROCEEDINGS

Saturday, May 30

19:00	**Society**	Committee on International Relations

Sunday, May 31

09:00-18:00	**Society**	Registration and signing-in
09:00	**Society**	Editorial and Publications Committee
09:30	**Academy III**	Council
10:00	**Academy II**	Council
10:30	**Society**	Committee on Symposia
10:30	**Society**	Finance Committee
11:00	**Académie I**	Council
13:00	**Society**	Executive Committee
14:00	**Society**	Council

19:30	**Society**	New Fellows Assemble
19:45	**Society**	Officers Assemble
20:00	**Society**	First General Assembly

Address of Welcome: Dr. A. A. Lee, B.A., M.Div., M.A., Ph.D., D.Litt.S., President and Vice-Chancellor, McMaster University

Presentations of New Fellows

21:30	**Society**	Reception offered by McMaster University to meet New Fellows and recipients of awards

Monday, June 1

08:00-12:00	**Society**	Registration and signing-in
09:00	**Society**	Symposium: Part I: "Acquired Immune Deficiency Syndrome"

Chairman: Alexander G. McKay

Howard Temin, Nobel Laureate, McArdle Laboratories University of Wisconsin, "Virology of AIDS"

Tak W. Mak, Ontario Cancer Institute, Toronto, "Immunology Research and AIDS"

William Blattner, United States National Institute of Health, Washington, D.C., "Epidemiology of AIDS"

H. Vellend, Toronto General Hospital, "Clinical Aspects of AIDS"

12:05	**Académie I**	Luncheon: Business Meeting
12:05	**Academy II**	Luncheon: New Fellows will be recognized
12:05	**Academy III**	Luncheon: President's address: A. T. Stewart

14:00 **Society** Symposium: Part II:
"Acquired Immune Deficiency Syndrome"

Chairman: A. T. Stewart

Martin Davey, Acting National Director, Blood Services
The Canadian Red Cross Society, Toronto, "Blood Banking
Problems Presented by AIDS"

June Osborn, Dean of Public Health, Michigan University,
"Ethical Issues Raised by AIDS"

Colin L. Soskolne, Dept. Health Services Administration and
Community Medicine, University of Alberta, "The Canadian
Retrospective on AIDS: Implications for Future Policy,
Economics, Behaviour Modification and Research"

16:00 **McMaster U.** Formal Naming of A.N. Bourn
Centennial Science Building

17:00 **McMaster U.** Reception
Centennial

18:00 **Society** Dinner offered by the City of Hamilton

20:00 **Society** Concert: Hamilton Philharmonic Orchestra

Tuesday,June 2

08:30-
09:30 **Academy III** Section Business Meetings

Mathematics, Physics, Chemistry, Earth Sciences, Plant
Biology, Animal Biology, Microbiology and Biochemistry,
Interdisciplinary, Applied Science, Medical Science

09:00 **Académie I** Symposium: Part I:
"Le changement des institutions au Québec et au Canada"

Chairman: André Raynauld

Evelyne Lapierre-Adamcyk, University of Montréal, "La famille
canadienne au 20e siècle: de l'homogénéité à la diversité"

Gérard Bélanger, Laval University, "La réforme: le secteur public"

Jean-Marie Gagnon, Laval University, "Les organisations et la théorie de l'agence"

Gérard Hébert, University of Montréal, "Evolution du mouvement syndical"

09:00 **Academy II** Symposium:
"Canadian Editors and Diggers Abroad"

Chairman: Alexander G. McKay

A.K. Grayson, University of Toronto, "Clio in Cuneiform Costume: the Royal Inscriptions of the Mesopotamia Project"

J.W. Wevers, University of Toronto, "Critical Editions of Canonical Texts: the Göttingen Septuaginta"

R.J. Buck and A.M. Small, University of Alberta, "The Roman Villa at San Giovanni"

James Russell, University of British Columbia, "Excavation and Restoration in Roman Anemurium (Turkey)"

John P. Oleson, Victoria University, and E. Hector Williams, University of British Columbia, "The Humayma Hydraulic Survey (Jordan): Geophysical Prospection of Ancient Stymphalos and Lesbos (Greece)"

09:30 **Academy III** Business Meeting

10:30 **Academy III** Medallists speak on their work

Chairman: E.A. McCulloch

Keith J. Laidler, Department of Chemistry, University of Ottawa, "The Second Half Century of Physical Chemistry"

Harold Williams, Department of Earth Sciences, Memorial University, "Changing Ideas on the Evolution of Geologic Mountain Belts"

12:05	**Society**	Luncheon, Presidential Address: Alexander G. McKay
14:00	**McMaster U. Centennial**	Centennial Lecture: Herbert Simon, Economist and Nobel Laureate "The Psychology of Scientific Discovery"
15:30	**Académie I**	Symposium: Part 2 "Le changement des institutions au Québec et au Canada"

Chairman: Gérard Dion

Ernest Caparros, University of Ottawa, "Evolutions et involutions en droit privé"

Discussion

15:30	**Academy II**	Business meeting
15:30	**Academy III**	Medallists speak on their work

Chairman: E.A. McCulloch

Henry G. Friesen, Department of Physiology, University of Manitoba, "Perspectives on Prolactin Research"

A. John Berlinsky, Institute for Materials Research, McMaster University, "Spin-polarized Atomic Hydrogen: a Brief Review"

17:00	**Society**	Annual Business Meeting
18:45	**Society**	Reception
19:30	**Society**	Annual Dinner

Presentation of Society Awards

Pierre Chauveau Medal: Benoît Lacroix

The Lorne Pierce Medal: Rudy Wiebe

The Innis-Gérin Medal: Anthony D. Scott

The Jason A. Hannah Medal: Toby Gelfand

The Thomas W. Eadie Medal: Alexander McLean

The McLaughlin Medal: Henry G. Friesen

The Willet G. Miller Medal: Harold Williams

The Henry Marshall Tory Medal: Keith J. Laidler

The Rutherford Medal in Chemistry: Grenfell N. Patey

The Rutherford Medal in Physics: A. John Berlinsky

The Sir William Dawson Medal: Gérard Dion, F. Kenneth Hare

Wednesday, June 3

09:00 **Académie I** The Academy is invited to attend the Academy II Symposium

09:00 **Academy II** Symposium:
"Science in Archaeology: Contributions of the Physical and Natural Sciences to Archaeological Interpretation"

Chairman: J. V. Wright

J. V. Wright, Head, Scientific Section, Archaeological Survey of Canada, Canadian Museum of Civilization, "Introduction"

John H. McAndrew, Department of Botany, University of Toronto, "The Greening of Canada: Glacier Retreat and Plant Migration"

F. Kenneth Hare, Ontario Nuclear Safety Review, "Climatic Variation in the Holocene: a Perspective"

A. E. Litherland, McLennan Physical Laboratories, University of Toronto, "The Impact on Archaeology of Recent Developments in Radio-Carbon Dating"

Henry P. Schwarcz, Department of Geology, McMaster University, "Isotopes and Bones, Blood and Stones: Physical Science in Archaeology"

Richard E. Morlan, Archaeological Survey of Canada, Canadian Museum of Civilization, "Archaeology as Palaeobiology"

09:00 **Academy III** The Academy is invited to attend the Academy II symposium

13:45 **Society** Symposium:
"Global Change: Towards a National and International Program"

Chairman: Wm S. Fyfe, University of Western Ontario, Chairman, The Canadian Global Change Program

Introduction

Digby J. McLaren, President-elect, Royal Society of Canada "Canada and the International Geosphere-Biosphere Program"

Harold Mooney, Dept. of Biological Sciences, Stanford University, Chairman, U.S. IGBP Committee, "U.S. Contributions to IGBP: a Study of Global Change"

Perspectives

John Matthews, Terrain Sciences Division, Geological Survey of Canada, "The Climatic Record of the Last 5 Million Years: Of What Value for Study of Global Change?"

Alan Longhurst, Bedford Institute of Oceanography, Halifax, "Canadian Activities Towards Global Marine-Atmosphere Studies"

David Braybrooke, Department of Philosophy, Dalhousie University and Gilles Paquet, Dean, Faculty of Administration, University of Ottawa, "The Human Dimension: Managing Global Change"

Discussion

Thursday, June 4

09:00 **Society** Workshop: "Managing Global Change"

Co-chairmen: David Braybrooke and Gilles Paquet

Wm S. Fyfe and Digby J. McLaren, "Introduction"

David Braybrooke, Gilles Paquet, Ian Burton, International Federation of Institutes for Advanced Study: General Discussion; Elements of a research agenda; Development of a set of working groups; Synthesis and structure of summary document to be prepared by Messrs. Braybrooke and Paquet

ORDRE DU JOUR

Samedi, 30 mai

19h00	**Société**	Comité des relations internationales

Dimanche, 31 mai

09h00-18h00	**Société**	Inscription
09h00	**Société**	Comité d'édition et des publications
09h30	**Académie III**	Conseil
10h00	**Academy II**	Conseil
10h30	**Société**	Comité des colloques
10h30	**Société**	Comité des finances
11h00	**Académie I**	Conseil
13h00	**Société**	Comité exécutif
14h00	**Société**	Conseil
19h30	**Société**	Rencontre des nouveaux membres
19h45	**Société**	Rencontre du groupe de la tribune
20h00	**Société**	Première assemblée générale

Accueil: Dr. A. A. Lee, B.A., M.Div., M.A., Ph.D., D.Litt.S., Président et Vice-chancelier, Université McMaster

Présentation des nouveaux membres

21h30	**Société**	Réception offerte par l'Université McMaster pour recontrer les nouveaux membres et les lauréats des distinctions

Lundi, 1er juin

08h00-
12h00 **Société** Inscription

09:00 **Société** Colloque: 1re partie:
"Syndrome d'immuno-déficience acquise"

Président: Alexander G. McKay

Howard Temin, Lauréat du prix Nobel, Laboratoires McArdle, Université Wisconsin, E.U., "Virology of AIDS"

Tak W. Mak, L'Institut de Cancer de l'Ontario, Toronto, "Immunology Research and AIDS"

William Blattner, United States National, Institute of Health, Washington, D.C., "Epidemiology of AIDS"

H. Vellend, Hôpital Général de Toronto, "Clinical Aspects of AIDS"

12h05 **Académie I** Déjeuner d'affaires

12h05 **Academy II** Déjeuner: les nouveaux membres se présentent

12h05 **Académie III** Déjeuner: Discours du président: A.T. Stewart

14h00 **Société** Colloque: 2e partie,
"Syndrome d'immuno-déficience acquise"

Président: A. T. Stewart

Martin Davey, Directeur national intérimaire des services de sang, La Société Canadienne de la Croix Rouge, Toronto, "Blood Banking Problems Presented by AIDS"

June Osborn, Dean of Public Health, Michigan University, "Ethical Issues Raised by AIDS"

Colin L. Soskolne, Dept. des services de santé, d'administration et de médecine dans la communauté, Université de l'Alberta, "The Canadian Retrospective on AIDS: Implications for Future Policy, Economics, Behaviour Modification and Research"

16h00 Centenaire U. McMaster — Dédicace - Pavillon des sciences A.N. Bourns

17h00 Centenaire U. McMaster — Réception

18h00 **Société** — Dîner offert par la Ville de Hamilton

20h00 **Société** — Concert: Orchestre Philharmonique de Hamilton

Mardi, 2 juin

8h30-9h30 **Académie III** — Réunions d'affaires des sections

Mathématiques, Physique, Chimie, Sciences de la terre, Biologie végétale, Biologie animale, Microbiologie et biochimie, Interdisciplinaire, Sciences appliquées, Science médicale

9h00 **Académie I** — Colloque: 1re partie:
"Le changement des institutions au Québec et au Canada"

Président: André Raynauld

Evelyne Lapierre-Adamcyk, Université de Montréal, "La famille canadienne au 20e siècle: de l'homogénéité à la diversité

Gérard Bélanger, Université Laval, "La réforme: le secteur public",

Jean-Marie Gagnon, Université Laval, "Les organisations et la théorie de l'agence"

Gérard Hébert, Université de Montréal, "Evolution du mouvement syndical"

9h00 **Academy II** — Colloque:
"Canadian Editors and Diggers Abroad"

Président: Alexander G. McKay

A.K. Grayson, Université de Toronto, "Clio in Cuneiform Costume: The Royal Inscription of the Mesopotamia Project"

J. W. Wevers, Université de Toronto, "Critical Editions of Canonical Texts: the Göttingen Septuaginta"

R.J. Buck et A.M. Small, Université de l'Alberta, "The Roman Villa at San Giovanni"

James Russell, Université de la Colombie Britannique, "Excavation and Restoration in Roman Anemurium (Turkey)"

John P. Oleson, Université de Victoria et E. Hector Williams, Université de la Colombie Britannique, "The Humayma Hydraulic Survey (Jordan): Geophysical Prospection of Ancient Stymphalos and Lesbos (Greece)"

9h30 **Académie III** Réunion d'affaires

10h30 **Académie III** Les lauréats de distinctions parlent de leur oeuvre

Président: E. A. McCulloch

Keith J. Laidler, Département de Chimie, Université d'Ottawa,"The Second Half-Century of Physical Chemistry"

Harold Williams, Département des sciences de la terre, Université Memorial, "Changing Ideas on the Evolution, of Geologic Mountain Belts"

12h05 **Société** Déjeuner, Discours du président: Alexander G. McKay

14h00 Centenaire **U. McMaster** Conférence du centenaire Herbert Simon, Economiste et lauréat du prix Nobel, "The Psychology of Scientific Discovery"

15h30 **Académie I** Colloque: 2e partie
"Le changement des institutions au Québec et au Canada"

Président: Gérard Dion

Ernest Caparros, Université d'Ottawa, "Evolutions et involutions en droit privé"

Discussion

15h30 **Academy II** Réunion d'affaires

15h30 **Académie III** Les lauréats de distinctions parlent de leur oeuvre

Président: E.A. McCulloch

Henry G. Friesen, Département de physiologie, Université de Manitoba, "Perspective on Prolactin Research"

A. John Berlinsky, Institute for Materials Research McMaster University,"Spin-polarized Atomic Hydrogen: a Brief Review"

17h00 **Société** Assemblée générale ordinaire

18h45 **Société** Réception

19h30 **Société** Dîner

Présentation des médailles

La médaille Pierre Chauveau: Benoît Lacroix

La médaille Lorne Pierce: Rudy Wiebe

La médaille Innis-Gérin: Anthony D. Scott

La médaille Jason A. Hannah: Toby Gelfand

La médaille Thomas W. Eadie: Alexander McLean

La médaille McLaughlin: Henry G. Friesen

La médaille Willet G. Miller: Harold Williams

La médaille Henry Marshall Tory: Keith J. Laidler

La médaille Rutherford en chimie: Grenfell N. Patey

La médaille Rutherford en physique: A. John Berlinsky

Le prix Sir William Dawson: Gérard Dion et F. Kenneth Hare

Mercredi, 3 juin

9h00 **Académie I** L'Académie est invitée à assister au colloque de l'Academy II

9h00 **Academy II** Colloque:
"Science in Archaeology: Contributions of the Physical and Natural Sciences to Archaeological Interpretation"

Président: J.V. Wright

J. V. Wright, Chef, Section Scientifique, Commission Archéologique, Musée canadien des civilisations, "Introduction"

John H. McAndrew, Département de botanique, Université de Toronto, "The Greening of Canada: Glacier Retreat and Plant Migration"

F. Kenneth Hare, Etude de la sécurité nucléaire de l'Ontario, "Climatic Variation in the Holocene: a Perspective"

A. E. Litherland, Laboratoires McLennan de physique, Université de Toronto, "The Impact on Archaeology of Recent Developments in Radio-Carbon Dating"

Henry P. Schwarcz, Département de Géologie, Université McMaster, "Isotopes and Bones, Blood and Stone: Physical Science in Archaeology"

Richard E. Morlan, Commission archéologique, Musée canadien des civilisations, "Archaeology as Palaeobiology"

9h00 **Académie III** L'Académie est invitée à assister au colloque de l'Academy II

13h45 **Société** Colloque: "Transformation du Globe: vers un programme national et international"

Président: Wm S. Fyfe, Université Western Ontario, Président, Etude canadienne de la Transformation du Globe

Introduction

Digby J. McLaren, Président-élu, Société royale du Canada, "Canada and the International Geosphere-Biosphere Program"

Harold Mooney, Dept. Biological Sciences Stanford University, Chairman, U.S. IGBP Committee, "U.S. Contributions to IGBP: a Study of Global Change"

Perspectives

John Matthews, Division de la science des terrains, Commission géologique du Canada, "The Climatic Record of the Last 5 Million Years: Of What Value for Study of Global Change?"

Alan Longhurst, Institut Bedford Océanographique, Halifax, "Canadian Activities Towards Global Marine-Atmosphere Studies"

David Braybrooke, Département de philosophie, Université Dalhousie et Gilles Paquet, Doyen, Faculté d'administration, Université d'Ottawa, "Le facteur humain: la gestion de la transformation du globe"

Discussion

18h00 **Société** Nouveau Conseil: Souper d'affaires

Jeudi, 4 juin

9h00 **Société** Atelier: "Gestion de la Transformation du Globe"

Co-présidents: David Braybrooke, Gilles Paquet

Wm S. Fyfe et Digby J. McLaren, "Introduction"

David Braybrooke, Gilles Paquet, Ian Burton, Fédération internationale d'instituts pour les études supérieures: Discussion; Rudiments d'un ordre du jour pour la recherche; Composition de quelques groupes de travail; Synthèse et structure d'un résumé qui sera rédigé par MM. Braybrooke et Paquet

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Délibérations et Mémoires

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Collections of specialized scientific papers on a single theme or related themes have been published for the Society from time to time. Inquiries and orders should be directed to the Secretariat. A list of out-of-print volumes may be obtained from the Society; these volumes are available through the on-demand publishing programme of University Microfilms (Ann Arbor, Michigan, U.S.A.).

Publications spéciales

On a publié de temps en temps, pour le compte de la Société, des collections d'ouvrages portant sur un thème unique ou sur des questions connexes. Veuillez adresser toute demande d'information ou toute commande au Secrétariat. On peut obtenir de la Société la liste des volumes épuisés; ces volumes sont disponibles sur demande à University Microfilms (Ann Arbor, Michigan, U.S.A.).

Soils in Canada, Robert F. Legget, ed., 1961, water damaged copies, $5.50

Marine Distributions, M.M. Dunbar, ed., 1963, $5.00

Studies in Analytical Geochemistry, Denis M. Shaw, ed., 1963, $5.95

Geochronology in Canada, F. Fitz Osborne, ed., 1964, $5.95

Glacial Till - An Interdisciplinary Study, Robert F. Legget, ed., 1976, ISNB 0 920064 11 6, $15.00

Energy Flow - Its Biological Dimensions (The IBP in Canada 1964-1974), T.W.M. Cameron and L.W. Billingsley, eds., 1975, ISBN 0 920064 05 1, $3.00

Nuclear Issues in the Canadian Energy Context, E.P. Hincks, ed., 1979, ISBN 0 920064 13 2, $5.00

Nuclear Winter and Associated Effects: A Canadian Appraisal of the Environmental Impact of Nuclear War/Evaluation par le Canada des conséquences qu'une guerre nucléaire aurait sur l'environnement. F.K. Hare, A. Forester, eds., 1985, ISBN 0 920064 21 3, $15.00

Studia Varia

Most volumes are now out of print. The available titles are retained by the Royal Society. All volumes (15) continue to be available through the on-demand publishing programme of University Microfilms (Ann Arbor, Michigan, U.S.A.).

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Water Resources of Canada/Ressources hydrauliques du Canada, C.E. Dolman, ed., 1967, $8.50

Visages de la civilisation au Canada Français, L. Lamontagne, éd., 1970, $7.50

Le Canada français d'aujourd'hui, L. Lamontagne, éd., 1970, $7.50

Proceedings of Symposia

These volumes, consisting of papers presented at symposia held from time to time by the Society, are published, in most cases, as simply as possible to keep costs to a minimum and to ensure rapid publication. The contents in all cases are presented in English or French, depending on the language of the speaker. They are sold by the Secretariat of the Society except as shown.

Ces brochures réunissent les communications qui sont présentées aux colloques que la Société organise de temps en temps: aux fins d'en réduire le coût et d'en assurer l'actualité; elles paraissent, la plupart du temps, sous une forme aussi simple que possible, en anglais ou en français, selon la langue utilisée par le conférencier. On peut se les procurer au Secrétariat de la Société sauf cas spécial.

1 *The Tundra Environment*, F. Kenneth Hare, ed., 1970, $2.00
2 *Mercury in Man's Environment*, J.E. Watkin, ed., 1971, $5.00
3 *Communications into the Home/Les communications au foyer*, W.C. Brown, ed., 1972, $3.00
4 *Futures Canada/L'avenir du Canada*, J. T. Wilson, ed., 1972, $2.00
5 *Physics and Chemistry of Ice*, F. Whalley, S.J. Jones and L.W. Gold, eds., 1973. $10.00 (Bound)
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9 *Le Rapport Parent, dix ans après*, L.-P. Audet, éd., 1975. Sold by/vendu par La Maison Bellarmin. $5.00
10 *Frontiers and Limitations of Knowledge/Frontières et limites du savoir*, C. Fortier, ed., 1974. $4.00
11 *Les facettes de l'identité amérindienne/The Patterns of Amerindian Identity*, M.-A. Tremblay, éd., 1976. ISBN 0920064 04 3. Sold by/vendu par Les Presses de l'université Laval. $13.50
12 *Problems of Development in Atlantic Canada*, S.D. Clark, ed., 1976. ISBN 0920064 012 9. $5.00
13 *Preserving the Canadian Heritage/La préservation du patrimoine canadien*, K.J. Laidler, ed., 1975. ISBN 0920064 00 0. $5.00
14 *The University of the Future/L'université de l'avenir* (Summary of discussions/Résumé des discussions), Jan Morgan and K.J. Laidler, eds., 1977 (Free distribution/distribution libre)
15 *New Perspectives in Canadian Archaeology/Nouvelles perspectives de l'archéologie canadienne*, A. G. McKay, ed., 1976. ISBN 0920064 06 X. $5.00

16 *Canadian and World Food*, W.E. Henderson, ed., 1977. ISBN 0 920064 07 8. Sold by the Agricultural Institute of Canada. $8.00

17 *Shifts in the Balance of Canada's Resource Endowments*, R.E. Folinsbee, ed., 1977. ISBN 0920064 10 8, $4.00

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19 *Planetary Atmospheres/Atmosphère des planètes*, A. Vallance Jones, ed., 1978. $6.00

20 *Hermes (The communications Technology Satellite): Its Performance and Applications/Hermes (Le satellite technologique de télécommunications): son fonctionnement et ses applications*, I. Paghis, ed., 1978. ISBN 0 920064 12 4, 3 vols/3 tomes $25.00

21 *Glacier Beds: The Ice-Rock Interface*, 1979, as Vol. 23, No. 89, 1970. Published and sold by the International Glaciological Society, Cambridge, CB2 BIER, England. £20

22 *The Written Word/Prestige de l'écrit*, A.G. McKay, ed., 1981. ISBN 0 920064 14 0. $7.00

23 *A Century of Canada's Arctic Islands, 1880-1980/Un siècle des îles arctiques du Canada, 1880-1980*. Morris Zaslow, ed., 1980. ISBN 0 920064 15 9. Soft cover $20.00

24 *Continuité et rupture. Les sciences sociales au Québec*. Georges-Henri Lévesque et autres, éds, 1984. 2 volumes, 671 pages, ISBN 1 7606 0682 1. Vendu par les Presses de l'Université de Montréal. $36.00

25 *Ethanol from Biomass*, H.E. Duckworth and E.A. Thompson, eds. 1983. ISBN 0 920064 17 5. $20.00

26 *Assessment and Perception of Risk to Human Health in Canada/Evaluation et perception des risques à la santé au Canada*, J.T. Rogers and D.V. Bates, eds., 1983. ISBN 0 920064 18 3. $10.00

27 *Renouvellements dans la théorie de l'histoire littéraire/Renewals in the Theory of Literary History*, Eva Kushner, éd., 1983. ISBN 0 920064 19 1. $11.00

28 *The Information Economy: Its Implications for Canada's Industrial Strategy*. C.C. Gotlieb, ed. 1984 ISBN 0 920064 20 5. $20.00

29 *Origin and Evolution of the Universe: Evidence for Design?/Origine et l'évolution de l'univers: traces d'intentionalité?*, J.M. Robson, ed. 1987. McGill-Queen's Press. Cloth $35.00, paper $15.95

30 *Symbols in Life and Art/Les Symboles dans la Vie et dans l'Art*, James A. Leith, ed. 1987. McGill-Queen's Press. $35.00

31 *Diet, Nutrition and Health*, K.K. Carroll, ed. (to be published/doit paraître)

Reports

Available for the cost of postage and handling from the Society's office unless otherwise indicated. Limited stocks.

Disponibles au bureau de la Société moyennant les frais d'envoi sauf indication contraire. Stocks limités

Acid Deposition in North America, F.K. Hare, ed., 1983. Available from Environment Canada, Place Vincent Massey, 315 St. Joseph Blvd, Hull, Québec KlA 0H3

Long-range Transport of Airborne Pollutants in North America, F.K. Hare, ed. 1984. Available from Atmospheric Environment Service, 4905 Dufferin Street, Downsview, Ontario M3H 5T4

Lead in in Gasoline: a Review of the Canadian Policy Issue/Du Plomb dans l'essence: Etude pour une politique au Canada, F.K. Hare, ed., 1985. Available from Environment Canada.

The Great Lakes Water Quality Agreement: An Evolving Instrument for Ecosystem Management. O.L. Loucks & H.A. Regier, eds., 1985.

Lead in the Canadian Environment: Science and Regulation (Final Report)/Le plomb dans l'environnement du Canada: science et réglementation (conclusions et recommandations), F.K. Hare, ed., 1986. Available from Environment Canada.

Global Change: The Canadian Opportunity/Transformation du globe: le défi canadien, Wm S. Fyfe, ed., 1986.

Human Dimensions of Global Change: The Challenge to the Humanities and the Social Sciences, D. Braybrooke and Gilles Paquet, eds., 1987.